HEARING TO REVIEW EFFORTS TO DELIVER INTERNATIONAL FOOD AID AND PROVIDE FOREIGN AGRICULTURAL DEVELOPMENT ASSISTANCE

HEARING

BEFORE THE

SUBCOMMITTEE ON SPECIALTY CROPS, RURAL DEVELOPMENT AND FOREIGN AGRICULTURE

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HEARING TO REVIEW EFFORTS TO DELIVER INTERNATIONAL FOOD AID AND PROVIDE FOREIGN AGRICULTURAL DEVELOPMENT ASSISTANCE

WEDNESDAY, JULY 16, 2008

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SPECIALTY CROPS, RURAL DEVELOPMENT, AND FOREIGN AGRICULTURE,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:02 a.m., in Room 1300 of the Longworth House Office Building, Hon. Mike McIntyre [Chairman of the Subcommittee] presiding.

Members present: Representatives McIntyre, Salazar, Barrow, Pomeroy, Musgrave, Smith, Fortenberry, and Moran.

Staff present: Aleta Botts, Alejandra Gonzalez-Arias, John Riley, April Slayton, Mike Dunlap, and Jamie Weyer.

OPENING STATEMENT OF HON. MIKE MCINTYRE, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

The CHAIRMAN. This hearing of the Subcommittee on Specialty Crops, Rural Development and Foreign Agriculture will come to order. I am Congressman Mike McIntyre from southeastern North Carolina. Welcome to all of you for coming today and as shown by the presence of the number of people here, this obviously is a hearing that I believe will iterate—will be generating great interest. I would like to welcome everyone here to the Subcommittee's efforts to deliver international food aid and provide foreign agricultural development assistance in the form of a hearing to discuss these issues. I am pleased to welcome Mr. Michael Yost, the Administrator of the Foreign Agricultural Service, and Mr. James Kunder, acting Deputy Administrator of the U.S. Agency for International Development. Welcome, gentlemen.

The world is facing an unprecedented challenge to its food and agricultural systems. Just last week, the U.S. Department of Agriculture released a food security assessment that projects that the food security situation in 70 developing countries will deteriorate over the next decade, and the number of hungry people will increase by 16 percent in the next year alone.

This hearing will consider two key pieces of the continuum of options to address this crisis: immediate food aid and longer term agricultural development assistance. So we want to look at both the

short term, the immediate crisis, as well as the longer view so that we can plan for the future.

First, with regard to food aid, the United States is by far the largest contributor of food aid worldwide, giving over half of the annual total worldwide. I am grateful that the good Lord has blessed our land with plenty that we can do this and I think we should count our blessings and share that cornucopia with others. Worldwide, the act of breaking bread with another person symbolizes a fellowship, a kinship with another human being and not only nourishes the body but nourishes the soul. Our food aid accomplishes this on a huge scale, something that we all, in this room, know the United States needs to do in this time of international crisis. The United States has stepped up to respond to the crisis through additional resources, as well. The recently enacted supplemental appropriations bill provides over $1.2 billion in additional funds for 2008 and 2009 with the P.L. 480 Food for Peace program taking our contribution for food aid to an even higher level.

We all are interested in learning the status of current food aid efforts, what is expected in the next year with regard to regions at risk of famine, including Ethiopia, a place that I have been to twice in the last 10 months and Somalia. And how the resources recently provided by the Congress and the supplemental appropriations bill will be used.

Now, with regard to agricultural development, the United States, we realize, must continue to provide food aid to address crisis situations. However, we cannot be short-sighted. We have to consider how funds to provide the agricultural development can be used to enhance the ability of the developing nations themselves to produce food. After all, food provided directly today does not necessarily always lead to a full stomach for tomorrow. As Members of the Agriculture Committee, we are uniquely aware of the plentiful bounty that we do have in this country, with which we have been blessed in the forms of its fields and our resources. But, beyond that, we also understand the importance that supply chains have that deliver inputs and transport harvests; the markets that facilitate interactions between buyer and seller; and the well developed system of land-grant institutions, which I know many of us are proud of in our states, that conduct research and extension programs—extension assistance to our farmers and our ranchers and to farm families. Underlying all of this, our legal, judicial and regulatory systems help protect private property rights and other rights that we know are enshrined in our Constitution and by law. All of these elements are critical to our highly developed agricultural economy. Rarely are all of them present in the economies of developing countries that are experiencing food shortages, which is why we have to look at the broader picture.

Agricultural development assistance competes with numerous other foreign aid priorities and has, too often, lost in the battle to these other priorities. The proportion of U.S. development assistance for agriculture has declined from 25 percent of total development assistance in 1980 to less than one percent last year. The World Bank has decreased its lending to the agricultural sector from 30 percent in 1978 to eight percent in 2006. We need to evaluate that level of commitment from our own country and the devel-

oped world to measure the increase that we need to have in agricultural production.

I hope the witnesses gathered today will provide answers to the questions that have arisen about the state of our agricultural development efforts with examples and statistics like I have just shared. How can limited agricultural development resources best be used with regard to particular sectors, and for countries that are devoting their own resources to the effort and have created a desirable regulatory environment for agricultural development. What do we know about the successes and the failures of existing programs and how can we use those lessons to educate and enhance future development efforts. Also, I want you to be thinking about how the United States can do a better job of reducing the impact of the food crisis on vulnerable populations through greater attention with regard to agricultural development.

I would encourage the witnesses to use the 5 minutes that they are provided for their statements to highlight the most important points. Please do not read your statement, unless you can read it all within 5 minutes. Otherwise, please select the highlights and summarize those within the 5 minute time period, given our time constraints today. Pursuant to Committee rules, testimony by witnesses, along with questions and answers by Members of the witnesses, will be stopped at 5 minutes. But don't worry, your complete written testimony will be submitted, in its entirety, in the record and we welcome that complete statement.

[The prepared statement of Mr. McIntyre follows:]

PREPARED STATEMENT OF HON. MIKE MCINTYRE, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

Good morning, and welcome to the Subcommittee's hearing on efforts to deliver international food aid and provide foreign agricultural development assistance. I am pleased to welcome Mr. Michael Yost, the Administrator of the Foreign Agricultural Service, and Mr. James Kunder, Acting Deputy Administrator of the U.S. Agency for International Development.

The world is facing an unprecedented challenge to its food and agricultural systems. Just last week, the U.S. Department of Agriculture released a Food Security Assessment that projects that the food security situation in 70 developing countries will deteriorate over the next decade and the number of hungry people will increase by 16 percent in the next year alone.

This hearing will consider two key pieces of the continuum of options to address this crisis: immediate food aid and longer-term agricultural development assistance.

Food Aid

The United States is by far the largest contributor of food aid worldwide, giving over half of the annual total. I am grateful that the good Lord has blessed our country with plenty so we are in a position to do this. Worldwide, the act of breaking bread with another person symbolizes a fellowship, a kinship with another human being. Our food aid accomplishes this simply on a larger scale.

The United States has stepped up to respond to the crisis through additional resources. The recently enacted supplemental appropriations bill provides over $1.2 billion in additional funds for 2008 and 2009 within the P.L. 480 Food for Peace program, taking our contribution to food aid even higher.

I am interested in learning the status of current food aid efforts, what is expected in the next year with regard to regions at risk of famine, including Ethiopia and Somalia, and how the resources recently provided by the Congress in the supplemental appropriations bill will be used.

Agricultural Development

The United States must continue to provide food aid to address crisis situations. However, we cannot be short-sighted. We have to consider how funds we provide for agricultural development can be used to enhance the ability of developing na-

tions to produce food. After all, food provided directly today does not necessarily lead to a full stomach tomorrow.

As Members of the Agriculture Committee, we are uniquely aware of the plentiful bounty we have in this country in the forms of its fields and its resources. Beyond that, however, we also understand the importance of the supply chains that deliver inputs and transport harvests, the markets that facilitate interactions between buyer and seller, and the well-developed system of land-grant institutions that conduct research and extension assistance to our farmers and ranchers. Underlying all of this, our legal, judicial, and regulatory systems help protect private property and other rights enshrined in our Constitution and other laws.

All of these elements are critical to our highly developed agricultural economy. Rarely are all of them present in the economies of developing countries experiencing food shortages.

Agricultural development assistance competes with numerous other foreign aid priorities and has lost too often to these other priorities. The proportion of U.S. development assistance for agriculture has declined from 25 percent of total development assistance in 1980 to less than one percent last year. The World Bank has decreased its lending to the agricultural sector from 30 percent in 1978 to eight percent in 2006. We need to evaluate the level of commitment of the United States and the developed world to measures to increase agricultural production.

I hope the witnesses gathered today will provide answers to questions that have arisen about the state of our agricultural development efforts.

How can limited agricultural development resources be best used with regard to particular sectors and for countries that are devoting their own resources to the effort and have created a desirable regulatory environment for agricultural development?

What do we know about the successes and failures of existing programs and how can those lessons educate future development efforts?

How can the United States do a better job of reducing the impact of the food crisis on vulnerable populations through greater attention on agricultural development?

Conclusion

I would encourage witnesses to use the 5 minutes provided for their statements to highlight the most important points in their testimony. Pursuant to Committee rules, testimony by witnesses along with questions and answers by Members of the witnesses will be stopped after 5 minutes. Your complete written testimony will be submitted in its entirety in the record.

At this time, I would like to recognize the Ranking Member of the Subcommittee, Representative Marilyn Musgrave, for any opening comments that she may have.

The CHAIRMAN. I would now like to recognize the Ranking Member, Mrs. Musgrave for an opening statement, and as a point of personal privilege, let me just say what an honor it is to work with her and I greatly respect her, her character and her work here in Congress. Mrs. Musgrave.

OPENING STATEMENT OF HON. MARILYN N. MUSGRAVE, A REPRESENTATIVE IN CONGRESS FROM COLORADO

Mrs. MUSGRAVE. Thank you, so much, Mr. Chairman. I appreciate you calling this hearing today to review the international food aid and agricultural development programs. As a Member of the House Hunger Caucus, these issues today are of particular importance to me. A little over a year ago this Subcommittee held a hearing to review food aid programs operated by USAID and USDA as a precursor to the Committee's work on the farm bill. That legislation was a catalyst to streamline our international food aid programs and more effectively meet the needs of millions of people throughout the world who do not enjoy the freedom and prosperity that we Americans, sometimes, take for granted.

For many years, the United States has been the leading contributor of all kinds of foreign aid. As you said, Mr. Chairman, especially food and development aid. Emergency food aid is a big part of what we are able to provide to help people survive in the face

of acute hunger resulting from drought, conflict or poor government, sometimes corrupt government. This continued trend in rising commodity prices has a double edge and we on the Agriculture Committee know that very well. While producers can benefit from higher prices, the U.N.'s food world—the U.N.'s World Food Programme estimates that higher commodity prices will drive an added 130 million people towards hunger, in addition to the 850 million people already suffering from chronic malnutrition.

Congress recently stepped up efforts to help counter a near doubling in the cost of food aid commodities with an additional $1.2 billion to supplement current efforts to combat hunger around the world. Today I look forward to hearing about how those efforts are succeeding. Though emergency assistance is an important component of U.S. aid around the world, agricultural development is believed, by many, to be the very foundation of sound economic progress. We are very proud of our ability to provide resources to help feed the world, but I think that everyone here would applaud the moment that those developing countries are able to have a sustainable economy.

The United States has always been a leader in contributing to a vast array of development and capacity building initiatives. With the advent of significant, private investment in development programs it is imperative that a consensus on the direction of agricultural development be reached among all contributing partners, here and abroad, to prevent duplication of projects. Agricultural development, certainly, cannot happen in a vacuum and I believe that the United States must also play an active role in building the institutions of law, property rights, which are critical to the long term success of development efforts. We want to foster peace and stability in these developing nations and that will diminish the need for acute aid and allow leaders to turn their attention to building the global economy.

As food and energy prices rise, the World Bank and the World Food Programme have stated that much of the progress made in the last decade has been eroded. Poor governments, weak institutions, adverse weather and multiple approaches to aid programs present tremendous challenges for those Congress has entrusted with taxpayers hard earned money to help developing countries.

I look forward to hearing from the witnesses today, and I want to hear how they are overcoming these challenges. Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mrs. Musgrave. The Chair will now request that other Members submit their opening statements for the record so the witnesses may go ahead and begin their testimony and we ensure that there is ample time for questions by the Members.

[The prepared statements of Messers. Peterson, Goodlatte, and Smith follow:]

PREPARED STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN CONGRESS FROM MINNESOTA

Thank you, Chairman McIntyre for recognizing me to speak and for holding this hearing. I also want to welcome the witnesses who have joined us today and thank them for their testimony.

The need for food aid has grown and changed in significant ways even just in the past few months. Administrator Yost from USDA and Acting Deputy Administrator Kunder from USAID, we are interested to hear how your agencies are responding to the increasing need for food aid and what can be done to help you respond to immediate and long term food assistance needs internationally.

The international aid organizations on today's second panel play an integral role in delivering food aid and supporting long term agricultural development in the countries where hunger and poverty are most acute. Today, I hope they can share with us their experiences on the ground where development programs have succeeded, where they have failed and why.

While the food crisis is a major challenge facing people living in poverty and organizations dedicated to helping them, this is also an opportunity to invest in the long term ability of poor regions to expand agricultural production to feed their people and create successful businesses in their rural and agrarian communities. The market is providing a clear signal to encourage production, but unfortunately, due to a lack of roads, access to credit and other factors, producers in many developing countries are not able to respond sufficiently to the market. While meeting the immediate needs for food continues to be a priority, I hope that our witnesses can offer insight into the long term development that is going on and that needs to be done in order to improve the ability of developing countries to meet some of their own food needs.

Chairman McIntyre, thank you again for holding this hearing, and I look forward to the testimony from our witnesses.

PREPARED STATEMENT OF HON. BOB GOODLATTE, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

I thank the Chairman for convening the hearing today, and for the time our witnesses have taken to be here. Today's hearing is addressing two very important issues: food aid and agricultural development programs. Both of these programs have the potential to have a positive impact on the lives of many people throughout the world through emergency and long-term programs.

The U.S. provides more food aid than any other country in the world. The recently passed farm bill reauthorized U.S. food aid and development programs and expands tools needed for quick humanitarian response, such as prepositioning commodities overseas. Our farmers and ranchers produce the safest, most abundant, most affordable food supply in the world and are proud of the role they play in helping those in need.

Today, there are more people in need of urgent food aid than ever before. Sudan continues to struggle with conflict which is affecting over four million people in and around the country. Ethiopia is facing a chronic crisis with over ten million people requiring emergency assistance. And Zimbabwe has over five million people who are relying on food assistance. These are just a few of the many countries in need.

While disruptions to crops, higher commodity prices, and growing populations add to the strain on their own food systems, the contributing factor of poor governance cannot be ignored. Today we will hear testimony discussing how USAID is coordinating agricultural development efforts through USDA and other partners.

Agricultural development can provide a firm foundation on which countries can build their economy. It is important to pay attention to the details of how those programs are designed and implemented, so I look forward to hearing from the agencies and private organizations involved in carrying out these projects. I am particularly interested in hearing how the strategic approach USAID is using will overcome the significant challenges facing our experts in the field.

Thank you, Mr. Chairman.

PREPARED STATEMENT OF HON. ADRIAN SMITH, A REPRESENTATIVE IN CONGRESS FROM NEBRASKA

Good afternoon and thank you, Mr. Chairman.

The price of food and fuel has arrested the attention of Nebraskans, the United States, and indeed the world. As all of us here are aware, these increased costs have created great challenges for lower income Americans, but have had an even greater impact on the poor of developing countries. The budgets of both government and food aid organizations have been stretched as they try to provide more assistance with fewer resources. We are here today to consider tools to meet these challenges.

Our food aid and agricultural development assistance dollars should be spent to help developing nations become capable of sustained economic growth. We can ac-

complish this objective through education, research into production systems best suited to different regions, free trade, and application of agricultural technologies.

I personally find science-based solutions and new technologies exciting. They are the future of agriculture. Biotechnology has revolutionized agriculture in the United States, and genetically modified crops may lead to the second green revolution in the developing world. These technologies could help us to overcome the challenges of feeding an increasing number of people, dealing with extreme weather conditions, combating new and old diseases, and increasing efficiency with fewer inputs.

I want to thank our witness for testifying, and the Committee and the Chairman for holding this hearing. I look forward to working with you in the future.

The CHAIRMAN. So with that, we will begin with our first panel, and Michael Yost, Administrator of the USDA Foreign Agricultural Service, James Kunder, acting Deputy Administrator of the Agency for International Development. Gentlemen, as I said a moment ago, we welcome you here today. Mr. Yost, if you would please begin.

STATEMENT OF MICHAEL W. YOST, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. YOST. Mr. Chairman, Members of the Subcommittee, I am pleased to appear before you today. The U.S. Department of Agriculture, the U.S. Agency for International Development and all of our partner agencies and organizations are proud of the role we play in helping countries overcome hunger and malnutrition. USDA's Foreign Agriculture Service administrates two non-emergency food assistance programs that are making a difference in the lives of poor and hungry people: the Food for Progress (FFP) program and the McGovern-Dole International Food for Education and Child Nutrition (McGovern-Dole) program.

The FFP is targeted to countries that are making strides toward democracy and private enterprise. The program emphasizes private sector agricultural and economic development to enhance food security. The McGovern-Dole program supports education, child development and food security in low-income, food-deficit countries that are committed to universal education. The program provides U.S. agricultural products, as well as financial and technical assistance, to our partners, who combat hunger and strengthen the quality and the access to education. FAS works closely on food assistance and agricultural development projects with USDA's Farm Service Agency, USAID, and other partners, including private voluntary organizations and inter-governmental organizations. We base our priority countries on factors such as per capita income levels, prevalence of under-nourishment, moving toward freedom, adult literacy rates, government commitment to education and degree, if any, of civil conflict.

Food aid is just one component in our global assistance efforts. Trade-capacity building allows USDA to lend its expertise in agriculture, food and trade to support market-based agricultural development and help countries create regulatory systems that enable them to produce safe products for domestic consumption and for trade with other markets.

The Cochran Fellowship Program helps middle-income countries and emerging democracies develop the capacity to trade through short-term, market-orientated, agricultural training in the United States. The Norman E. Borlaug International Agricultural Science and Technology Fellows Program provides collaborative research

training at U.S. universities, USDA or other government agencies and non-governmental organizations that foster the scientific and technological advances in agriculture.

USDA also has a critical role in the economic, political and security environment in Afghanistan and Iraq. In Afghanistan, 80 percent of the population is involved in farming and herding. In Iraq, the agriculture there is the second largest contributor to the country's gross domestic product and employs 25 percent of the labor force, making it the largest employer in Iraq. USDA provides expertise in agricultural policy and development in these two countries. We coordinate our efforts through an interagency process that includes, among others, the U.S. Department of State, the U.S. Department of Defense, and USAID.

Our most notable role has been through USDA employees who have volunteered as advisors on Provincial Reconstruction Teams (PRT), which typically consist of military units of 50 to 100 personnel with two to three U.S. Government civilian advisors. PRT activities include soil and water conservation, irrigation and water management, grain and seed storage, post-harvest loss reduction, market system development, livestock health, nutrition, and breeding. Since 2003 and 2006, respectively, USDA has deployed 48 volunteers in Afghanistan and 20 to Iraq from nine different USDA agencies.

The Administration's Fiscal Year 2009 budget requests $12.5 million for the Office of the Secretary, which is crucial for USDA to have the resources to support agriculture reconstruction and development in both of these countries.

High commodity costs, combined with increased transportation costs, have tightened the amount of food aid that can be provided under the limited program budgets. We have taken innovative and bold steps to ensure critical needs are met. A year ago, USDA initiated the Stocks-for-Food program, exchanging government owned commodities, acquired through forfeitures of marketing assistance loans for processed products to be distributed through USDA domestic and international food assistance food programs. Stocks-for-Food is providing approximately $120 million in funds, with $100 million going to the emergency food assistance program, and more than $20 million to benefit over 650,000 children and mothers in the McGovern-Dole Program.

Last month, Agriculture Secretary Schafer laid out the United States' integrated three-pronged strategy to combat rising global food prices. First, the United States will target countries made vulnerable by rising food prices. To that end, President Bush directed USDA to draw down the Bill Emerson Humanitarian Trust, which made $200 million worth of total assistance immediately available through P.L. 480 Title II Program. We also greatly appreciate the supplemental appropriations provided by Congress for P.L. 480 Title II Program food aid in Fiscal Year 2008 and the additional bridge funding provided for Fiscal Year 2009. Second, we will provide developmental assistance to countries capable of rapidly increasing stable food production, such as through the trade-capacity building programs that I previously talked about. And third, we will support trade liberalization, increasing the use of advanced agricultural technology.

The United States is encouraging other governments to lift restrictions on agricultural exports, adapt science-based regulations that promote research and adoption of innovative technologies, such as biotechnology and conclude an ambitious agreement to the Doha Development Agenda of the World Trade Organization this year. While we will continue to deal with a variety of food assistance challenges in the years ahead, together we will remain focused on our primary goal to ensure that the food needs of the poor and hungry are met.

This concludes my statement. I look forward to answering any questions.

[The prepared statement of Mr. Yost follows:]

PREPARED STATEMENT OF MICHAEL W. YOST, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. Chairman, Members of the Subcommittee, I am pleased to appear before you today with James Kunder, Acting Deputy Administrator of the U.S. Agency for International Development (USAID). The U.S. Department of Agriculture, USAID, and all of our partner agencies and organizations are proud of the role we play in helping countries overcome hunger and malnutrition. I will review USDA's efforts to deliver international food and agricultural development assistance.

Food Assistance Programs

The two food assistance programs administered by USDA's Foreign Agricultural Service (FAS) are making a difference in the lives of poor and hungry people: the Food for Progress (FFP) Program and the McGovern-Dole International Food for Education and Child Nutrition (McGovern-Dole) Program. These programs provide international assistance and support development activities that alleviate hunger and improve nutrition, education, and agriculture in some of the world's poorest countries.

FFP is targeted to countries that are making strides toward democracy and private enterprise. The program emphasizes private sector agricultural and economic development and enhanced food security in recipient countries. In Fiscal Year 2007, USDA implemented 21 Food for Progress agreements in 15 countries with a total program value of nearly $120 million. Ongoing activities are reaching well over one million beneficiaries, including farmers and their families, community members, cooperatives, producer groups, and small agribusinesses. Activities have included improving agricultural techniques and marketing systems, providing education to farmers, helping to develop cooperatives, teaching irrigation and land conservation techniques, supporting agribusinesses and microcredit enterprises, and other activities that build the capacity to trade.

The McGovern-Dole Program supports education, child development, and food security in low-income, food-deficit countries that are committed to universal education. The program provides donated U.S. agricultural products, as well as financial and technical assistance, to our partners, who creatively combat hunger and strengthen the quality of and access to education. In addition to providing food for direct distribution, USDA has provided cash resources for school-related infrastructure improvements, teacher and parent-teacher association training, and school gardens. Since 2000, the McGovern-Dole Program has provided meals to feed more than 22 million children in 41 countries and boosted school attendance.

For both the FFP and McGovern-Dole Programs, FAS works closely on food assistance and agriculture development projects with USDA's Farm Service Agency, USAID, and our partners, including private voluntary organizations (PVOs), cooperatives, intergovernmental organizations, foreign governments, and the United Nations World Food Programme. Each fiscal year it is necessary to:

- Determine priority countries based on the objectives of each program and factors such as per capita income levels, prevalence of undernourishment, movement toward freedom, adult literacy rates, government commitment to education, and degree, if any, of civil conflict; and
- Evaluate and select proposals based on specific criteria. These criteria are program-specific and may include assurances that commercial markets will not be disrupted; tangible benefits exist for the country's agricultural sector; the recipi-

ent country is committed to improving its quality of education and nutrition; and the program is sustainable after USDA funding ends.

Trade-Capacity Building

Food aid is just one component in our global assistance efforts. Trade-capacity building (TCB) allows USDA to lend its expertise in agriculture, food, and trade to support market-based agricultural development and help countries create regulatory systems that enable them to produce safe products for domestic consumption and for trade with other markets, leading to economic development and growth.

Because of limited FAS resources, TCB is a shining example of how we coordinate with other agencies within USDA, and other parts of the U.S. Government, as well as with universities, PVOs, and the private sector. For example, we rely on the technical expertise of USDA's Food Safety and Inspection Service (FSIS) to conduct food safety seminars, USDA's Animal and Plant Health Inspection Service (APHIS) to explain U.S. import requirements, and USDA's Cooperative State Research, Education, and Extension Service (CSREES) to connect us with experts at land-grant and historically-black colleges and universities. We all have a common goal to provide the means for people to lift themselves and their countries out of poverty and into sustainable and ultimately viable economies that can trade in the world market.

Our TCB activities with developing and transitional countries facilitate trade, promote food security, and increase the ability of developing nations to participate in global agricultural markets.

For example, our Cochran Fellowship Program helps middle-income countries and emerging democracies develop the capacity to trade through short-term, market-oriented agricultural training in the United States targeted at senior and mid-level specialists and administrators from the public and private sectors. The program helps eligible countries develop agricultural systems that meet the food needs of their citizens and strengthens and enhances trade linkages between eligible countries and agricultural interests in the United States.

Since its inception in 1984, the Cochran Program has provided training for more than 13,000 international participants from 103 countries worldwide, including the President of Albania, the Prime Minister of Moldova, and Madagascar's Minister of Land Reform, Fields, and Urban Planning.

The Norman E. Borlaug International Agricultural Science and Technology Fellows Program provides collaborative research training for entry-level international agricultural research scientists and policymakers from developing and middle-income countries. Training takes place at U.S. universities, USDA or other government agencies, private companies, not-for-profit institutions or international agricultural research centers through exchanges that foster the transfer of scientific and technological advances in agriculture, and that address obstacles to the adoption of technology, such as ineffectual policies and regulations.

Since 2004, the Borlaug Program has grown from training 33 Fellows from five countries to 310 Fellows from 40 countries in 2008. Notable graduates from the Borlaug Program include the Director of Animal Industry and Fisheries in Uganda's Ministry of Agriculture, the Assistant Director for Nigeria's National Institute of Agronomic Research, and the Director of the Quality Mark and Certifications Department in Oman's Ministry of Agriculture.

FAS' Trade and Investment Missions (TIMs) target emerging markets and free trade agreement (FTA) countries to promote two-way trade and investment. The missions form partnerships between local agribusinesses and U.S. financiers and agribusinesses. The missions provide U.S. participants with focused one-on-one meetings with host country business representatives. In addition to furthering business opportunities, these discussions also identify and address trade barriers. Financial support to U.S. and host country businesses is facilitated through the Export-Import Bank and other investment brokers.

TIMs have been conducted in many countries and regions. Since 2005, missions to East Africa, the Republic of Georgia, Kazakhstan, North Africa, Southern Africa, and West and Central Africa have generated an estimated $45.8 million in two-way trade.

How These Programs Work Together

Let me give you an example of how FAS weaves all these programs together in one region of the world to provide an integrated approach to developing stable, secure economies that can become reliable trade partners and markets for U.S. agricultural products now and in the future. The Dominican Republic-Central America Free Trade Agreement (CAFTA–DR) is notable for being the first U.S. trade agreement that includes trade capacity building in its structure. We are using all of our

tools—food and technical assistance, trade-capacity building and training programs—to help our partners in this region realize the benefits of free trade.

For example, in Honduras, USDA is working with Catholic Relief Services (CRS) to implement a McGovern-Dole Program agreement to improve access to quality education in 15 Honduran municipalities where malnutrition exceeds 60 percent. In 2006, CRS used 4,400 metric tons of U.S.-donated food valued at $3.4 million to provide daily meals to more than 32,700 students in 658 elementary schools. Take-home rations were delivered to more than 13,000 children under the age of 5. The free school breakfasts and dry rations have allowed parents to use their resources for other purposes. The project also included the delivery of take-home rations to nearly 7,000 pregnant women and new mothers.

Several complementary activities are being supported by this project, which will improve sustainability, education, and hygiene. More than 120 gardens or fish ponds have been built, teaching parents and schoolchildren new ways to produce food and providing food and income for the schools. Elementary and pre-school teachers from the schools continue to receive training through organized workshops in mathematics and Spanish. The program has improved sanitation systems and infrastructure for 77 of the neediest 100 schools. Work is continuing at the remaining 23 schools. Employment opportunities have been created through handling and distribution of the food and the construction of the new infrastructure.

In Guatemala, FINCA International, a PVO, implemented an FFP agreement in 2006 that used 8,000 tons of U.S. soybean meal and 2,000 tons of U.S. tallow to generate $3.2 million in proceeds to support a micro-credit program. The proceeds were used to develop a village banking program tailored to the specific needs of Guatemala's rural entrepreneurs. The program brings neighbors together, giving them the collective power to disburse, invest, and collect loan capital. Clients report improved earnings and family nutrition, high loan repayment rates, and increased empowerment. Last August, former Agriculture Secretary Mike Johanns met with Guatemalan women who had used these loans to develop small businesses, all of which were generating income to support their families.

Also during this trip, former Secretary Johanns announced that USDA would lead an agribusiness trade and investment mission to the CAFTA–DR region in the near future. This mission will provide an excellent opportunity for U.S. and Central American agribusinesses to develop commercial ties, expand two-way trade, and promote foreign direct investment.

In Nicaragua, Cochran Fellowship Program alumni made valuable contributions to improving their country's national trade policies and regulatory frameworks, resulting in increased market access for U.S. agricultural products. The four alumni received Cochran training in agricultural biotechnology. Upon their return home, they provided expert consultations to the Health Commission of the Nicaraguan National Assembly, which enabled the Commission to send a positive report on a comprehensive Biosafety Bill to the President of the National Assembly.

Under the Borlaug Program, USDA has formed a partnership with the World Cocoa Foundation to provide a specialized program to help the cocoa industry in CAFTA–DR countries, Africa, and South East Asia combat cocoa pests and diseases, build trade and scientific capacity, and improve regional cocoa production and market access. USDA is seeking a total of 14 fellows from these cocoa-producing countries—four from CAFTA–DR, seven from Africa, and three from South East Asia—for this new initiative.

Reconstruction and Stabilization in Afghanistan and Iraq

Finally, I would like to discuss USDA's role in rehabilitating the agricultural sectors in Afghanistan and Iraq. Our assistance in these efforts is a critical component to the economic, political, and security environment in both countries. In Afghanistan, 80 percent of the population is involved in farming and herding. In Iraq, agriculture is the second largest contributor to the country's gross domestic product and employs 25 percent of the labor force, making it the largest employer in Iraq.

USDA provides expertise in agricultural policy and development in these two countries. We coordinate our efforts with and through an interagency process that includes, among others, the U.S. Department of State, the U.S. Department of Defense (DOD), and USAID. Again, we draw from a full range of resources both here in the United States and as much as possible in-country to facilitate technical assistance, exchanges, and university extension programs to demonstrate sound agricultural and regulatory practices.

Our most notable role has been through USDA employees, who have volunteered as advisors on Provincial Reconstruction Teams (PRT), which typically consist of military units of 50–100 personnel with two to three civilian U.S. Government advisors. PRT activities include soil and water conservation, irrigation and water man-

agement, grain and seed storage, post-harvest loss reduction, market system development, and livestock health, nutrition, and breeding. Since 2003 and 2006, respectively, USDA has deployed 48 volunteers to Afghanistan and 20 to Iraq from nine different USDA agencies, including the Agricultural Marketing Service; Animal and Plant Health Inspection Service; Cooperative State Research, Education, and Extension Service; Farm Service Agency; FSIS; FAS; Forest Service; Natural Resources Conservation Service (NRCS); and Rural Development. Of these agencies, NRCS has provided the most employees.

The Administration's Fiscal Year 2009 budget request includes $12.5 million in the Office of the Secretary to help support the costs of participating in these activities in both Iraq and Afghanistan. Agricultural reconstruction and development are crucial for establishing stability in both of these countries, and USDA needs dedicated funding to have the resources needed for its staff to play an effective role in achieving that goal.

High Food Prices

High commodity costs, combined with increased transportation costs, have tightened the amount of food aid that can be provided under limited program budgets, but we have taken innovative and bold steps to ensure critical needs are met.

About a year ago, we announced that USDA would exchange government-owned commodities for further processed products to be distributed through USDA domestic and international food assistance programs. We call this new initiative "Stocks-for-Food." The government-owned commodities were acquired through forfeitures of marketing assistance loans to farmers, and include wheat, corn, soybeans, cotton, peanuts, and rice.

Stocks-for-Food is providing approximately $120 million in funds, with $100 million going toward The Emergency Food Assistance Program—one of our domestic food aid programs—and more than $20 million to benefit over 650,000 children and mothers in several low-income countries through the McGovern-Dole Program.

The issue of high food prices has received the attention of the world food aid community as well as world leaders. In response, President Bush directed USDA to draw down the Bill Emerson Humanitarian Trust, which made $200 million of total assistance immediately available through the P.L. 480 Title II Program to address the impact of rising commodity prices on U.S. emergency food aid programs, using the funds to meet unanticipated food aid needs in Africa and elsewhere.

We greatly appreciate the work between the Administration and Congress to provide $850 million in supplemental appropriations for P.L. 480 Title II Program food aid in Fiscal Year 2008 and $395 million in additional funds to support the Title II program in Fiscal Year 2009 to address the most immediate needs and alleviate systemic problems.

At the High-Level Conference on World Food Security in Rome last month, Agriculture Secretary Schafer laid out the United States' integrated, three-pronged strategy to combat rising food prices. First, the United States will target countries made vulnerable by rising food prices. Second, we will provide development assistance to countries capable of rapidly increasing staple food production. And third, we will support trade liberalization and increasing the use of advanced agricultural technologies.

The United States encourages other governments to conclude an ambitious agreement in the Doha Development Agenda of the World Trade Organization this year that increases market access for agricultural products and reduces trade-distorting subsidies; lifts restrictions on agricultural exports; and expands research, promotes science-based regulations, and encourages the adoption of innovative technologies, including biotechnology.

Conclusion

While we will continue to deal with a variety of food assistance challenges in the years ahead, together we will remain focused on our primary goal—to ensure that the food needs of the poor and the hungry are met.

This concludes my statement. I look forward to answering any questions you may have. Thank you.

The CHAIRMAN. Thank you, sir. Thank you very much. Mr. Kunder.

STATEMENT OF JAMES R. KUNDER, ACTING DEPUTY ADMINISTRATOR, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, WASHINGTON, D.C.

Mr. KUNDER. Thank you, Mr. Chairman. We very much appreciate your holding this hearing today. I think this is one of the most critical foreign policy issues facing our country, not only because of the human suffering that you mentioned, but because of the potential for instability in a number of critical countries around the world. What I tried to do in my testimony is talk about the nature of the current crisis we are facing. There are a lot of short term factors that are playing into this crisis, such as the drought that you mentioned in the Horn of Africa affecting Ethiopia and Somalia, increased petroleum prices, which obviously affect the utilization of fertilizer, and so forth, but essentially what I argue in my testimony is that we are facing a significant structural change in global supply and demand.

During the 1970s and 1980s, global food production increases were averaging in the three to four percent rate. Those have now declined to one percent a year, and given the fact that we are talking about a global population increase of about 1.15 percent a year, and in the developing countries, more like 1½ percent a year. We are facing a structural supply and demand situation that will require long term sustained efforts on the part of the U.S. Government and other donors around the world.

I cite in my testimony that this is not a change without some mixed benefits. Obviously, there are opportunities not only for American farmers; there are opportunities for poor farmers in the developing world. Zambia, which had, historically, a grain surplus, is now selling its grain. That means African farmers are benefiting from increased sales. But overall, we have a structural imbalance that we are going to have to address. I summarize in my statement the three basic approaches that the U.S. Government is taking.

One is emergency food aid for the vulnerable, that the Ranking Minority Member cited, who simply don't have access to food. And not only is that a question of providing food, but certainly USAID's experience in 50 years of dealing with these problems around the developing world, it is primarily a purchasing power problem. There may be food available on the markets; the very poor, the bottom billion that we talk about around the world, simply can't afford it. So what we are trying to address is not only availability of food, but availability of credit and incomes, micro-lending programs that will give the poorest of the poor an opportunity to buy their own food.

The second is we are looking at productivity increases where we think we can get an immediate bang for the buck in increased production in the developing world. To answer the part of your question, Mr. Chairman, as soon as we got that additional supplemental funding from the Congress, we have been identifying those countries in Africa and elsewhere where we believe an immediate infusion of additional foreign aid assistance could dramatically increase production of staple crops in the short term.

And the third part of this equation is long-term trade facilitation, and again I would agree with what the Ranking Minority Member said. This is not just a question of increased trade, but it is also

a question of macro-economic policy creating an environment where free markets will thrive around the world and we can see increased production.

One last aspect that I touch on in my testimony is we have to make sure we have good data, and are targeting the aid that the American taxpayers are making available to us. USAID traditionally funds the so-called FEWS NET program, the Famine Early Warning System. This is a combination of satellite tracking and local monitoring of food prices. We have now extended the FEWS NET system into urban areas around the world, which face the greatest potential for instability in this environment. The overall trend, I report in my testimony, within the U.S. Government, in terms of investing in all of these agriculture research, agriculture development issues, has in fact been downward. And that trend, over the last 20 years, is paralleled by the European foreign aid donors and all the other major donors around the country. And I think your diagnosis is correct, Mr. Chairman, what has happened is not a lack of attention or lack of interest in this, but simply our desire as a government to address other critical priorities like the global AIDS pandemic, and so forth, have crowded out agricultural funding. And certainly, in our 2009 request we are increasing those levels and I would posit that we have to get that investment back up, both with our agricultural universities and in partnership with the U.S. private sector.

We very much appreciate the assistance of the Congress in raising the appropriation levels that we asked for in Fiscal Year 2008 and 2009. I would just add one additional item to that. USAID is in the business of trying to rebuild our staffing levels. We once had a premier cadre of agricultural—American agricultural—specialists that we could have around the world assisting local farmers. That staffing level has dramatically eroded over the years, so from our perspective, we need to build up both our dollar amounts and also our technical staffing. We work very closely with the United States Department of Agriculture to make sure that we have technical experts around the world, but we simply don't have enough technical officers out there working with the exchange programs and the other critical interventions.

So that summarizes my statement, Mr. Chairman. I am glad to answer any questions you have. Thank you.

[The prepared statement of Mr. Kunder follows:]

PREPARED STATEMENT OF JAMES R. KUNDER, ACTING DEPUTY ADMINISTRATOR, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, WASHINGTON, D.C.

Thank you Chairman McIntyre and distinguished Members of the Committee. I appreciate the opportunity to be here today to address this important topic.

We are in the midst of a global food crisis unlike other food crises we have faced in the past half century, one not caused by natural disasters, conflict or any single event such as drought. It is not localized—instead it is pervasive and widespread, affecting poor people in developing countries severely. It is one that has demonstrated how worldwide markets transmit price rises rapidly, underscoring the need for global solutions.

The Members of this Committee are familiar with the new reality we face; Last year, the international food price index rose by 27.1%, compared with just 14.4% in 2006. So far from April 2007 to April 2008, the index is up more than 45%, and the prices of some major staples have increased even more. Dwindling global stocks of grain make prices even more sensitive to shocks, whether from a drought in Australia or floods in our Midwest. When countries react to high prices or tight supplies

by hindering trade, the global food system functions less efficiently, further exacerbating price volatility.

While sharply higher prices have been welcome news for many farmers, for the world's poor subsisting on $1/day or less they can mean deprivation and real hunger. The World Bank estimates that ranks of the chronically food insecure have grown, due to the impact of high prices, by over 100 million in the past year—to nearly 982 million. In addition to current estimates of 75 to 100 million people whose needs require immediate response, over two billion people, more than ⅓ of humanity, are being seriously affected.

The rapidly increasing cost of food is also weakening the ability of governments of both poor and middle-income countries to sustain growth, protect the vulnerable, or even to maintain order. The fear of food riots, even in some middle-income countries, presents a new dynamic that puts pressure on sound decision-making for long term growth and stability. The same high prices also limit our own ability to respond to critical emergency hunger needs around the world through our food aid programs.

In response to the challenge posed by rising food prices, President Bush has called for a three-pronged strategy to the crisis resulting from high global food prices. The first and most pressing component involves expanding humanitarian assistance, the second increasing agricultural productivity in at-risk regions, and the third, a vigorous policy effort to promote agricultural trade and investment.

Our food assistance programs have to be more efficient and targeted than ever. In Fiscal Year 2007, USAID provided more than two million metric tons of P.L. 480 Title II commodities, worth $1.87 billion, that reached an estimated 41 million beneficiaries in 56 countries around the world. In Sudan alone, more than 350,000 metric tons of food commodities, valued at $356 million, were provided to an estimated 6.4 million beneficiaries.

These amounts include approximately $1 billion annually to the U.N. World Food Programme (WFP), or approximately 40 percent of all contributions to the organization. We also contribute significant international food aid through private voluntary organizations (PVOs), and are committed to working with other donors, from both the commercial and nonprofit sectors.

To assist in meeting these immediate needs, the United States has taken various steps:

On April 14, President George W. Bush directed the Secretary of Agriculture to draw down on the Bill Emerson Humanitarian Trust to meet emergency food aid needs. The Emerson Trust is a food reserve of up to four million metric tons of wheat, corn, sorghum, and rice administered under the authority of the U.S. Secretary of Agriculture. The Secretary of Agriculture may authorize the release of commodities from the reserve to meet unanticipated emergency needs that cannot otherwise be met under Title II of P.L. 480. This release was estimated to provide $200 million in emergency food aid through USAID. This additional food aid is being provided for emergency needs in Afghanistan, Ethiopia, Kenya and Zimbabwe.

In addition, President Bush on May 1 requested $770 million in additional allocations, including $395 million intended to preserve price parity in existing food aid programs. These funds will allow USAID's emergency food aid program partners to meet their ongoing humanitarian obligations.

We thank Congress for passing the emergency supplemental spending last month, with $850 million in P.L. 480 resources for Fiscal Year 2008. Working closely with USDA, within days of the President's signature of the emergency supplemental, USAID initiated expedited commodity procurement procedures to ensure rapid arrival of lifesaving assistance.

Food for Peace has already provided significant assistance to the drought emergency affecting the Horn of Africa, particularly Ethiopia and Somalia. In Fiscal Year 2008 to date, more than 780,000 metric tons of Title II food aid, valued at nearly $650 million, has been provided to assist the region. With the new funding made available through the supplemental appropriation, much more food will soon be in the pipeline.

In summary, USAID's Food for Peace funding committed to address food insecurity and price increases totaled $1.87 billion in Fiscal Year 2007, with more than $1.53 billion to date in Fiscal Year 2008. Additionally, the emergency supplemental appropriation makes available in Fiscal Year 2009 $395 million for additional emergency food assistance.

To aid in addressing the new challenges we face, I'd like to share with you two new tools that will assist us in identifying populations impacted by rising food prices. The urban poor are particularly vulnerable to price increases because such a large portion of their income goes to purchasing food. These new early warning tools, developed by USAID's Famine Early Warning Systems Network (FEWS NET),

will allow us to monitor more closely emerging food security threats in urban settings.

The first tool is an urban food market price watch, which tracks price changes for staple foods in 20 countries. This price information will provide advance warning to better target our food aid resources to the most vulnerable. The second tool, which emerged from a workshop with private voluntary organizations and World Food Programme experts, is an urban food aid programming manual that will allow us to better target and deliver food aid to those most impacted by rising food prices.

As I have stressed, food and emergency assistance are short-term measures; they are critical tools but food aid alone will not solve the food crisis. Our approach links those emergency tools to growth in agricultural production, access to markets and advancement of global policy solutions that foster trade and investment in agriculture.

In its invitation, the Committee also asked for information about our agricultural development efforts—essentially the second thrust of our three-part effort in humanitarian assistance, growth in agricultural productivity, and sound global policies.

Agricultural productivity in developing countries grew at between three and four percent per year during the 1970s and 1980s. These gains fueled broad economic growth and marked reductions in hunger and poverty; food became both more available and more affordable for literally billions of the world's people. Now, annual agricultural productivity growth rates in the developing world are less than 1%—a rate that will not keep up with rising demands from ever-larger populations.

A coordinated global effort will be required to reverse the downward trend in productivity growth, and engagement by the United States as a leader will be essential. We have the world's largest and most diversified agricultural research capability, in our partnerships with USDA, the land-grant universities and in the private sector. Our seed, fertilizer and food industries represent tremendous resources in strengthening markets, reducing losses and generating economic gains through value addition.

Many of the threats faced by agriculture are global—for example the new stem rust disease of wheat spreading in Africa and Asia that Norman Borlaug has warned of. By working with the International Agricultural Research Centers and partners in Africa and India and here at home, USAID and USDA have combined forces to reduce the impact of an epidemic overseas and at the same time help protect American farmers and consumers from this devastating disease which could potentially cause billions of dollars in losses. Sources of resistance have been identified through research partnerships and resistant varieties are being developed and multiplied.

Similarly, our work to stop the spread of Avian Influenza is helping to protect both the health and livelihoods of millions of people in Africa and Asia. Valuable information is gained and lessons are learned that we can apply in similarly protecting our own nation's health as well as its poultry industry and wildlife.

Agricultural growth and resilience not only lead to reduced needs for food aid and emergency assistance, they open up new markets opportunities for American farmers and business to reach new markets. Traditionally, as developing countries invest more in crops, livestock and irrigation, demand for feed grains, other commodities and technology increases.

USAID has a proven track-record of promoting agricultural growth in many countries—we are seeing remarkably positive trends in countries that invest in technology and infrastructure, and build markets and trade that helps farms access the inputs they need and market the output they produce. Through the President's Initiative to End Hunger in Africa (IEHA), we have focused squarely on productivity, markets and trade—in other words, growth, but growth with special attention to the most vulnerable. This vision has now been widely acknowledged as the only sustainable means of reducing hunger.

Unfortunately, in recent years funding for agricultural development investments have declined as we face budgetary constraints. Let me stress that there has not been opposition to agricultural investment by USAID. In fact, current and past leadership of USAID have called for the need to do more in this vital sector. And within our budgetary constraints, we have done what we can. However, support to some of our most effective and strategic investments—for example in agricultural biotechnology and the Consultative Group on International Agricultural Research centers—had to be reduced.

Now that a renewed understanding of agriculture's vital importance to combating hunger, poverty and even civil unrest has emerged, the outlook for agricultural investment for FY 2009 has improved. USAID is gearing up to provide renewed leadership to the global development community. The emergency supplemental just

passed by the Congress will provide an additional $200 million in FY 2009 development assistance to help us begin to mount an effective response to the crisis. Of that amount, $50 million will support regional market development and local procurement of major food crops, $130 million will target production increases and markets in countries that have the potential to mount a rapid production response, and $20 million will support science and technology aimed at increasing productivity of food staples.

Our strategy focuses on increasing the availability and affordability of food staples on which low-income people depend in the most at-risk regions. We will do this by helping the agricultural sector in those countries modernize, providing new opportunities for millions of farm families, especially smallholders, to respond to the market. We can achieve this vision by building a coalition that aligns the resources of the U.S. Government with the commitment of the target countries themselves, other donors and the private sector—both for-profit and nonprofit.

Our investments will focus on restoring the growth in agricultural productivity in the developing world, especially of key staple foods, to levels that can meet rising demands. We will work to achieve rapid growth in agricultural trade—making markets more efficient for both low-income consumers and producers. The gains we make will actually reduce the need for emergency food assistance, as communities and nations make gains in ensuring their own food security. As we work toward these vital objectives, we will continue to meet the needs of those most vulnerable through both food assistance and emergency resources, all the while helping them to rebuild their livelihoods and resilience.

The Development Leadership Initiative recently endorsed by the Congress will help us build the institutional capacity necessary to lead in the global development community. Our partnership with the U.S. University community through Collaborative Research Support Programs (CRSPs), Higher Education for Development and other partnerships remains strong, and are helping to build a new generation of scientists and decision-makers from our partner countries ready to apply technology, policy and marketing know-how to solving the problems facing developing countries.

We are aligning our humanitarian and development assistance efforts in new ways. We are coordinating our efforts to address the near-term humanitarian crisis with the design of new programs that will build the foundation—information, technology, institutions, policies, safety nets—for the modernization of agriculture, transforming more small producers into commercial enterprises. To be successful we must focus our effort in agriculture while scaling them up to the level of the challenge.

Following are the key elements of our vision:

First, we must **halt the slide into hunger and absolute poverty.** Maintaining our global commitment to emergency food and nutrition assistance, and expanding local purchase and IDA funding to quickly reinforce productive safety nets (e.g. cash or food for work) and livelihoods, we will stabilize the situation, beginning this year in East and West Africa, and expanding to encompass other at-risk countries.

Second, we must **expand development and use of modern technology for staple foods.** We know that we can double yields of staple foods by ensuring that small-holder producers access the tools of modern agriculture—improved seeds, fertilizer, irrigation, dairy management. This is an area for U.S. leadership. Through our universities and industry, we are global leaders in the area of science and technology. U.S. farmers are in the forefront of adoption of modern technologies and practices. We see this very clearly in the area of biotech crops, for example. We must dramatically expand the use of existing technology and practices by small farmers, while also investing in longer-term challenges to agricultural productivity—climate change, the high price of fertilizer linked to high fuel prices, natural resource degradation, competition for water resources, and emerging diseases such as avian influenza or wheat stem rust.

To do this, we are expanding funding for research and development, harnessing traditional breeding, biotechnology, geospatial technology to guide resources management, as well as consider the role of advances in nanotechnology and energy efficiency. We will expand our partnerships with the biotechnology industry and the seed sector, U.S. universities, the Consultative Group on International Agricultural Research, and national research systems to leverage advance scientific research while training a new generation of agricultural researchers.

Third, we must **empower the private sector to deliver inputs and information.** More than ever before, agribusiness will take the lead in getting up-to-date production and marketing information to smallholder farmers. We must support small and medium enterprises as the key means of delivering seeds and fertilizer to rural communities. That will mean expanding support for business services, strengthening linkages between public research and commercialization of tech-

nology, access to credit, and policy reform to reduce the barriers to private sector investment.

Fourth, we need to **expand market access and efficiency.** We will connect small-holder producers to the market by expanding rural roads and information technology to provide access to market and price information. To stimulate market-led growth, we will strengthen the ability of producers to meet market standards—the quality, product diversity, and safety standards that will generate opportunity for commercial growth. Export restrictions, taxes and other hindrances to market signals and producer responsiveness will be reduced or eliminated. We will work to foster science-based regulatory policies that will foster trade, particularly in food staples, as well as investment by both the public and private sectors.

Fifth, we must work with the partner countries and the private sector to **expand access to financing.** We must expand and strengthen mechanisms to stimulate private investment in agriculture—from small producers to the value chain industries that take the product to the market. We must go beyond producers, however, and develop new mechanisms to fund the larger agribusiness engaged in the value chain—commodity importers, millers, processors, and distributors. Developing country policies must foster renewed confidence on the part of the financial sector that farming and other agro-enterprises are emerging as principal drivers of economic growth.

Sixth, the United States must lead a global effort to **promote policies that support growth.** This is, in effect, the third, longer term dimension of the President's response to the food crisis. As we engage our own government as well as other donors and the target countries themselves, we will support further analysis and discussion on policy dimensions and especially the successful conclusion of the Doha agreement.

Seventh, we must **reduce risks to food security for the poor.** We will align our humanitarian efforts with this growth strategy to maximize the synergies between meeting basic needs and enhancing productivity investments. This means linking our agricultural investments to humanitarian interventions (e.g. diversifying diets, delivering nutritional outreach alongside agricultural extension and health services) making sure that as we deliver humanitarian aid, we protect household productive assets and move families, communities, and the agricultural sector towards a growth strategy. We will also ensure that our productivity, market and finance activities build resilience for small producers. We are engaging the PVO and NGO community more comprehensively in ways that align with this growth strategy.

And finally, eighth, we need to **develop a new coalition based on commitment to a common agenda.** The United States is a crucial part of a global response to a global problem. To be effective, we must work as a partner and engage leaders at the highest levels in the target countries, regional economic organizations, the international development community (UN, World Bank, regional banks, private foundations) and the private sector (agrifood, seed, fertilizer industry, and finance institutions).

In sum, our vision calls for an unprecedented humanitarian and development assistance effort by the United States, distinguished by:

- ➢ Significant attention to staple foods;
- ➢ Action at scale with the problem;
- ➢ Real integration of targeted safety nets with wealth creation;
- ➢ Building the capacity in the target countries to carry the growth process beyond our assistance;
- ➢ Partnership with the target countries to ensure the commitment to policy and good governance needed to reach success. Our partner countries must demonstrate political will to invest and set a positive policy environment;
- ➢ Clear targets and metrics to gauge progress towards longer term goals;
- ➢ A "whole of government" approach, uniting the resources of multiple agencies;
- ➢ A coordinated effort with other donors; and
- ➢ A major role for the private sector in implementing this agenda.

We know we can increase food security in the world's poorest countries—in both its supply and demand dimensions—through strategic investments in agricultural development, markets and trade. The task of reducing hunger is huge, but the moral imperative is compelling. And in the long run, the cost of action will be less than the cost of inaction.

The FY 2009 bridge funding just approved by the Congress is an important step in the right direction. I urge the Members of this Committee to help make United

States' leadership in combating global hunger all that it should be. No one is better positioned to lead—in food assistance, in science and technology, and in fostering markets and trade.

We are confident that, with U.S. leadership and investment, we can stem and reverse the supply-demand imbalance that exists today in food staples. Some of it will occur here at home, but some of it must occur in countries where poor, food insecure populations generally make their living in agriculture. We know how to do it—we know what works and what does not; we know that we must rely much more on the private sector and on broad alliances than was the case in the first Green Revolution. We have new tools, and we need to use them: markets, trade and science will transform our approach.

Political leadership can help solve this crisis. Over the past months we have seen major commitments from the President and the Congress, and from leaders around the world. Ban Ki-moon, Bob Zoellick and Josette Sheeran have put the full force of their respective organizations behind this effort. But U.S. leadership remains vital to success and to the pursuit of a sustainable growth agenda for agriculture.

Failure is not an option. Though I have concentrated on the problem and its solution, we must never lose sight of the terrible human cost of hunger. Even short term hunger can unalterably affect a child by exposing him or her to disease, threatening normal cognitive development and lifelong productivity, or, tragically, even early death. Yet the problem posed by high food prices is one we know how to solve—and in doing so we can also recommit to ending the scourge of chronic hunger once and for all. Thank you.

The CHAIRMAN. Thank you. Excellent job. We appreciate that. Let me go ahead and ask you, since you were summarizing some of your points. You have the eight elements that you identify as part of the vision of USAID to address the food crisis. Many of these currently appear, in some form or fashion, in an existing development where, I noticed that you mentioned that it looked like, primarily, the concern was money and staffing. Are there other elements that can or should be enhanced in these eight items under the vision you have?

Mr. KUNDER. Beyond the funding level, sir?

The CHAIRMAN. Right.

Mr. KUNDER. Yes, certainly the staffing levels. We had a U.S. foreign aid program, at one point during the Vietnam War, we had 12,000 Americans we were sending around the world to assist with health programs, education programs, agricultural extension. I think it is common knowledge that when the Cold War ended, we made a number of decisions, as a government, the Administration and Congress, to eliminate tools of foreign policy like the U.S. Information Agency. We made a decision that we really didn't need to engage in the global struggle for hearts and minds. In my view, sir, that was a mistake. The U.S. Agency for International Development went from 12,000 American officers, we are down to now about 1,200 officers. And I don't want to paint all gloom and doom. We worked very closely with the U.S. Department of Agriculture, with the Army Corps of Engineers, with other parts of the U.S. Government, but we have eroded the staffing to what I believe is a harmful level, in terms of America's ability to respond to these kind of crises when they arise. The second thing is we need to rebuild as many of our partnerships with the land-grant universities. As the staffing has gone down within USAID, we once had a much more robust partnership with the land-grant universities. They are an enormous benefit and tool that America has to contribute to these kinds of crises, and one of the things that Administrator Fore has committed to is rebuilding that partnership with the land-grant universities.

The CHAIRMAN. Thank you, sir. And, Mr. Yost, can you tell us has there been any particular analysis done on the Food for Progress program to point out areas where the program has, particularly, achieved success that we can build on or, particularly, and conversely had a problem that we need to make sure is not repeated or that is removed.

Mr. YOST. We have a number of success stories with the Food for Progress program. Kenya comes to mind where we have done something with Land O'Lakes where we have developed a founder market system, including coaching for dairy—for the dairy industry, budding dairy industry in that country. As we look to the future, it is incumbent upon us to leverage our resources, perhaps, more than we have in the past. To put these programs that we administrate at USDA in more of a holistic approach to development, and we are trying to accomplish that, trying to blend the Food for Progress program along with the Cochran program, the Borlaug Program, our trade investment missions, so that we can build an infrastructure in these countries that can participate in world trade, bring their agricultural economies into the 21st century. And also, we are exploring some partnerships in some private sector trade associations and companies.

The CHAIRMAN. Can you give us an example of some of those private sector ones?

Mr. YOST. I would go back to the trade investment missions that we have hosted. We have hosted them in different parts of the world, we have a couple more that we are proposing to take place this year, where we take U.S. companies, small, medium and large to different countries. We have been to Kenya, we have been to Ghana, we have been to Kazakhstan, and they interact with their peers over there and they talk about opportunities, what needs to be done to create opportunities, what the government needs to do, what the private sector needs to do, and I think these are very beneficial. With today's technology, with wireless communication, with the group of young entrepreneurs coming up around the world, I think this can create the foundation for something quite dynamic as we move to the future.

The CHAIRMAN. Thank you, sir. Mrs. Musgrave.

Mrs. MUSGRAVE. Thank you, Mr. Chairman. Mr. Kunder, you and Mr. Yost, both, have talked about the three-pronged approach to combating the world food crisis and agricultural development seems to be the very centerpiece of that. I just would like to ask you why USAID previously diverted funding from the most effective and strategic investments, such as research that was mentioned in your statement, and where did you send this money?

Mr. KUNDER. Yes, ma'am. I probably would quibble with the term "diverted" because we have a Federal budgetary process and along the way we make a number of competing decisions. Our staff work in the developing world, and are passionately committed to food issues; and perhaps we have requested levels that perhaps weren't approved. But I particularly mention the term "crowding out." I honestly believe that what we have had happen in the 150 account, the foreign assistance and foreign diplomacy account has had a cap established by the budget process. As we have made decisions to take on issues like PEPFAR and malaria and illiteracy

and reconstruction in Afghanistan, the amount of money left over for some of the core things that we have traditionally done in foreign aid, jobs creation, creating private enterprise system, the kind of things you were talking about land titling, and certainly agriculture simply got crowded out within that 150 account. And I am not making excuses. We could have fought harder. Maybe we could have fought smarter, but that is the effect of what happened is we bumped up against those ceilings and I have enormous respect for the Congress. I am not here complaining, but our budget is currently earmarked. The U.S. Foreign Aid Budget is currently earmarked at about 104 percent. That is to say that we have enormous guidance from the Congress, in terms of how much we have to spend on malaria, how much we have to spend on child survival, and these are all worthy causes. But, what I find that is the core economic and agricultural functions which have the least passionate constituency and which end up at the end of the line, and that is the honest truth, ma'am.

Mrs. MUSGRAVE. Well, I certainly agree with the last part of your statement that you just made, the passion for each of these causes. Tell me about the role of private volunteer organizations and do they get to make many decisions about where programs should be and how it should be operated?

Mr. KUNDER. We rely enormously at USAID on the private sector, both not for-profit and for-profit. In terms of the NGOs, the way USAID operates around the world, the American non-governmental organizations and local NGOs are among our primary partners. They are actually out there on the front lines, working with the villagers, disseminating new seeds, disseminating new techniques, working with marketing systems. On the private sector side, the for-profit side, I have to say that this is one of the most productive areas for future work. We launched a couple of years ago what we call the Global Development Alliance, an explicit attempt to partner with for-profit private sector American firms. I got our team to print out, before I came up here today, a list of our current agricultural partnerships, and it is quite dramatic. We are partnering with Shell Oil in Nigeria to improve cassava production. We are partnering with American business in Angola to increase food production there. This is an exciting area where we can devote more of America's desire to invest in these poor countries and to the cause of human progress. So, in short, both the NGOs and the American for-profit, private sector are critically important partners to us.

Mrs. MUSGRAVE. Very quickly, when we think about wise use of these taxpayers' dollars, what do you do to avoid duplication? That is probably one of our biggest concerns.

Mr. KUNDER. Yes, ma'am, it is a very fair question and I would not claim perfection, but what our Food for Peace office does and our agricultural office, they do a country by country analysis and they try to look at what the country is investing, what other donors are investing, the World Bank, the British, the Japanese, what the NGOs are able to raise on their own. They do a country by country analysis to make sure that we are filling in the critical gaps and trying not to duplicate what others are doing.

Mrs. MUSGRAVE. Thank you very much. Thank you, Mr. Chairman.

The CHAIRMAN. Yes, ma'am, thank you. Mr. Pomeroy.

Mr. POMEROY. Mr. Chairman, and Ranking Member Musgrave, I want to commend each of you for your thoughtful opening statements and also for leadership of the Subcommittee in this way. You know, it disturbed me greatly, that as we were building the new farm bill, we found ourselves frequently at policy odds with the global hunger community, or at least the U.S. representatives of international food aid. We even heard suggestions, not new—that have made—been around for a few years, that the structure of the farm bill as constructed in this Committee has actually been a contributing factor to global hunger. That somehow U.S. agriculture was a contributing factor to the misery people are experiencing around the world and can't get enough to eat. I have just flat out rejected the premise of those advocates. I mean, the U.S. farmer has been extremely proud of the role they have played in providing food for the world. U.S. ag infrastructure has been very proud of the role they have played in the technological innovations that have greened the world. And so far from being a—viewing ourselves as somehow making the situation worse, we have always viewed ourselves as being a substantial contributing factor to the fight against global hunger.

Now, if we have some things wrong, we need to have a very robust dialogue about straightening out this difference. I view this hearing, and I hope other hearings to follow, as a formal way by which this Subcommittee really grabs this issue. I think it is a big one and one that in the end will potentially threaten our ability to pass another farm bill, if we don't get these points of difference straight. So it is in our near term self interest, but far beyond that. It is also consistent with the best instincts of this Committee, historically, we want to do our part to making sure people across the world have enough to eat, and so I—you know, this isn't, maybe, kind of run of the mill Agriculture Committee stuff that we are doing. Some might think, well this is—almost feels like the Foreign Affairs Committee. It is right in the heart of what we ought to be doing and I really commend the leadership of each of you in getting into this area. To our panel, I would say, if I close my eyes Mr. Kunder and Mr. Yost, I think, gosh, I don't—this is USAID or the Secretary of Defense at the table. I am going to quote the Secretary of Defense. I think what he has done is extraordinary and spot on. Today's *Washington Post,* Secretary Gates, "we cannot kill or capture our way to victory," he says, "in the long term campaign against terrorism." Now, the military action should be subordinate to political and economic efforts to undermine extremism. "American's civilian institutions of diplomacy and development have been chronically undermanned and under-funded for far too long, relative to what we traditionally spend on military, and more importantly, relative to the responsibilities and challenges our nation has around the world." How about that from the Secretary of Defense? I really think that the painful errors that have been made in military and foreign policy ought to shock us back into rebuilding the capacity, much in the ways that each of you have spoken of, so we have many things to talk about and not a lot of time.

Let me start with the little issues to make sure I get to cover it all in with the bigger issue. Land-grant—I was in Mali, what is it 2 years ago, and I was just appalled. It said 17 percent of the population has proximate access to potable water. I came back here to North Dakota State University with 3,000 engineering students and just magnificent engineering capacity. Nothing would be better for the—some of those engineering students to be parlayed into meaningful assistance in a partnership way as part of their learning experience. Maybe some of them would find careers in international development, but if nothing else, it would still be an extraordinary experience as part of an undergraduate curriculum. Yes, absolutely consistent with hard core engineering training, I mean, are these the kinds of things, Mr. Kunder, that you believe we could build upon?

Mr. KUNDER. Yes, sir, we do have a cooperative research support program with the land-grant universities. We have been in discussions, Administrator Fore has directed us to talk with the National Association of State Universities and Land-Grant Colleges here in town, which happens to be headed by our former USAID Administrator, Dr. Peter McPherson, formerly of Michigan State, and that is exactly the kind of thing we want to explore. There is an enormous capacity within our land-grant system to contribute to the problems we have been discussing here today, but, again, as the funding has gone down, as the number of ag officers that we have had to talk to our colleagues in the land-grant universities has eroded for all the reasons I think you, rightly, summarized earlier, this discussion has waned.

Mr. POMEROY. I had spoken, at some length, to the President of North Dakota State University about this and if there was a, specifically, an idea you have about how we might engage, in North Dakota, in this way please let me know.

Mr. KUNDER. Thank you.

Mr. POMEROY. I would like to do a little matchmaking there. We are ready to go.

Mr. KUNDER. Thank you, sir. If I could just add one thing, sir. You mentioned this perception that somehow American agriculture is contributing to some of these problems, I know there is a huge policy debate out there, but the Congress, in its wisdom, has given us the Bellmon Amendment and we are required to do, by law, a Bellmon Analysis of making sure that whatever agricultural bounty we deliver from the American farmer does not, in fact, disrupt local markets. Now I am not going to claim 100 percent perfection. We sometimes make mistakes, it is a tough business, but this is a standard part of our doing business. Before we deliver any U.S. food aid assistance, we do a serious analysis to ensure that it does not disrupt local farmers markets.

Mr. POMEROY. I just have one.

The CHAIRMAN. Thank you, Mr.——

Mr. POMEROY. Mr. Chairman, I have one more question. I know I am over time, but——

The CHAIRMAN. We will come back to you because what we have is——

Mr. POMEROY. Fine, another panelist.

The CHAIRMAN. Yes, if we have enough time, we can come back, I believe. Mr. Fortenberry.

Mr. FORTENBERRY. Thank you, Mr. Chairman and Ranking Member for holding this hearing and thank you, gentlemen, for coming before us. I think at the outset it is important to point out that the United States leads the world in terms of generosity and outreach, both in terms of agricultural and humanitarian assistance. I think that is important to point out because it is important to examine how effective our programs are, but also the underlying premise there is, in spite of the needs that exist in the world and the fact that people are continuing to turn to us to lead in this regard, this is very good because it points to two things. One, our capacity to help other peoples and two the generosity of the American people and willingness to do that, and with that said, and I appreciate Mr. Pomeroy's pointing out some of the creative and interesting thinking that is going on, in terms of issues of international security. How they are interrelated with: building capacity for people in need, not only in civil structures, but in market structures so that we can prevent boom and bust cycles; the need for immediate humanitarian assistance in grave circumstances so that these problems are mitigated and stability comes to people throughout the world, not only in terms of food production, but also in terms of building a variety of civil capacity so that people can, truly, have lives filled with opportunity and hope and build just and good societies. I mean, that is going to continue to be an evolving part of our entire foreign policy and defense policy considerations in Congress. With that said, you have both of those jobs, to meet the immediacy of need in terms of humanitarian crises that exist in the world, but also to try to prevent those crises by building the capacity for people to stabilize institutions of—whether that leads to agricultural production or other institutions such as markets that can allow for the free flow of goods and help people. In that regard, and the second point in regards to capacity building, I would like you to point to some best practices that have evolved and are working extraordinarily well that have prevented boom and bust cycles in terms of food production throughout the world. These have led to, again, an increase in capacity and stability for people who are in the most dire and difficult circumstances.

Mr. YOST. Congressman Fortenberry, as far as trade capacity building you were referring to?

Mr. FORTENBERRY. No. I am referring to building sustainablility in country infrastructure that will lead to, again, stabilized food production. Basically, since that is the primary focus of our hearing today, and other capacities that will, again, prevent or help build long term capacity to prevent the types of humanitarian difficulties that seem to arise in various places in the world and then necessitate emergency responses.

Mr. YOST. Well, it is a tall order, as you are well aware and other Members of the Committee have commented on. We have a number of things that we are trying to do and with varying amounts of success, as we try to establish sustainability, particularly in tenuous parts of the world. We have worked with countries on developing some good governmental practices. You have to have policies in place that reward production. You don't have economic policies in

place that provide a disincentive to produce, you don't control food prices at an artificially low level, as far as what you pay to producers. You also have to have in place financing—especially small ordered land holders, need financing desperately. That is one of the common threads we see throughout the world. We are working on different programs, trying to bring that—raise that issue to a higher level.

Mr. FORTENBERRY. Such as micro-finance.

Mr. YOST. Micro-financing, exactly. Then it gets into the acceptance of new technology. There is a resistance to biotechnology in developing countries that is unfounded. It is one of the reasons we are so productive in this country. We need to accentuate the positive of biotechnology. It is not the only new technology that we need to accentuate, but that clearly is one of the critical ones. People have to realize that if there are millions of farmers around the world, 12 million farmers, now using biotechnology, then it is good for all sizes of farmers. Things like: drip irrigation, water is getting to be a more and more precious resource; livestock genetics, we can quickly improve productivity by enhancing livestock genetics; food safety issues, post harvest handling, how to control losses. Many countries have up to 40 percent losses of post harvest handling to insects, rodents, because they don't have proper storage, don't have cold chains. These are all things that we are trying to work on, we are trying to elevate as necessities for sustainabilities.

The CHAIRMAN. Thank you, very much, Mr. Fortenberry. We would like to welcome the gentleman from Kansas, Mr. Moran. Although he is not a Member of the Subcommittee, he is a Member of the full Committee and we are always happy to have his presence with us. I have consulted with the Ranking Member, we are pleased to welcome you to join us in the questioning of the witnesses. It is my understanding, you were waiting until the second panel for questions, is that correct?

Mr. MORAN. Mr. Chairman, I thank you for your and Mrs. Musgrave's courtesy in allowing me to join the panel here today, and the opportunity to listen to the testimony and hear the witnesses. I am one of the House co-chair hunger—I am one of the Co-Chairman of the House Hunger Caucus and this is an issue of significant importance to all of us and I am delighted that you are having this hearing. I thank you again for your allowing me to participate today.

The CHAIRMAN. Thank you, Mr. Moran. Mr. Salazar, I understand you do not have a question at this time, but we welcome you with us. I will open the entire panel for anyone who may have a second question, and Mr. Pomeroy I believe you did, so I will be happy to call on you first.

Mr. POMEROY. Thank you, Mr. Chairman. It is probably an issue that, maybe, Mr. Moran will want to jump in on, as well. We discussed in the course of the farm bill construction, the structure of food aid response and we advanced the proposition and maybe we ought to wall off some of this aid to make sure that it goes into capacity building. Then, inevitably, there is an emergency, inevitably there is a complete spend out in the emergency response, so we are always fighting the fire and we never get around to fire prevention. In the end, that fell out of the bill and in light of the glob-

al food crisis, that wouldn't have probably had to, but Mr. Yost can you speak to this issue of—or either one of you, the issue of trying to build capacity, while on the other hand continually losing the resources because we have to deal with the emergency and not ever making much structural progress. Mr. Moran, have I captured your thoughts on that? Okay.

Mr. KUNDER. Sir, this was, as you know, a very hard-fought policy issue. We took the position that while we understand the basic principle that unless we invest in long term agricultural development in these poor countries, we are never going to get ahead of this thing, and we know we need to do that. But our argument was that the worst possible thing you could do would be to put rigid quantitative numbers into that bill. I am one of those people who have to, ultimately, sign the documents and make the decision to cut off emergency food to some place where people are starving because we would bump up against a ceiling and it has got to go into agricultural research. Now, obviously, the right answer in a resource unconstrained environment is we need both and that is why we are arguing for more money for long term agricultural research. That is why we appreciate the generosity of the Congress in giving us more money for that, but that is really the issue, is how to carve out enough money from the overall Federal budget to invest in long term agricultural research. But in the short term we would vigorously—respectfully, but vigorously—resist the notion of trying to figure this out ahead of time and allow us to make some of these very difficult decisions late in the fiscal year when people are starving somewhere.

Mr. POMEROY. Mr. Yost, are you seeing an evolution of receptivity to biotech foods in Africa? It was our take, a couple years ago, it seemed to be heavily influenced by European thinking on this. Basically, it was stifling some of the innovation that could be created to respond to unique circumstances of the extraordinarily difficult production circumstances in Africa. We could give them varieties that are going to do better down there, but the innovations used in developing those varieties was constrained, the ultimate result was food shortages.

Mr. YOST. Congressman Pomeroy, you are exactly right. The Europeans do have a significant amount of influence over Africa when it comes to biotechnology. I think gradually, maybe more than gradually, now, with the food security, the food price issue being at the forefront in everyone's mind, that people are starting to look at this technology in a different view. There is no question about it, it started in Asia, quietly the Koreans and Japanese have let products of biotechnology enter the food supply now. They haven't shown the resistance they have in the past. And visiting with groups that work in Africa, visiting with representatives from African countries, I see more interest than in the past. The key will be to develop crops that are grown in Africa, that are grown for domestic needs, not for exports that have bio-traits, particularly drought resistance traits, some other pest resistant traits. If we can get those developed, in place, on the ground, I think a critical mass will be there to see its acceptance.

Mr. POMEROY. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you Mr. Pomeroy. Anyone else have a second question? Yes, sir, Mr. Fortenberry.

Mr. FORTENBERRY. Mr. Kunder, I would like to allow you a chance to respond to the question that I asked, as well. In terms of looking at that second critical component of your work, emergency assistance. But, also, the balance that you are trying to achieve in terms of building sustainable capacity in the most difficult areas of the world so that we can prevent the emergencies that so often happen, and basically occupy, obviously, most of your effort. Best practices, in that regard, that you think have actually helped mitigate what could have been substantial crises that we can learn from and potentially duplicate.

Mr. KUNDER. Thank you, sir. I would agree with Mike that the range is pretty broad. The way we design our U.S. foreign aid program, we don't sit here in Washington, as the military likes to say, and apply the 6,000 mile screwdriver. We send an American team to a place like Malawi or Sri Lanka and then those folks tell us what is most needed. Is it improvement of the agricultural exchange service in that country, is it improved seed varieties, is it a strengthened agriculture training university? And then we try to build the program from the bottom up. But to answer your question directly, the two things that I think are unqualified successes around the world have to do with linking information technology with the effort to increase production. Number one, in places that don't have much infrastructure, where it is very hard to get farmers together because they don't have cars, pickup trucks, to disseminate new information about cropping techniques. Distance learning, we really perfected the technique of having an agricultural expert in the capital city and then having farmers gather around a radio somewhere and create an interactive extension service that is low cost, but effective, and then, increasingly try to disseminate to farmers the ability to tap into the Internet on market prices. One of the great impediments to these farmers is they are smart people and they know markets, but they simply don't have market data, and through simple dissemination of radios or other systems, we are able to allow them to tap into market data just like an American farmer and they will make the right decisions based on that. Those are the ones I would cite as real cost effective investments on the part of the American taxpayer.

Mr. FORTENBERRY. Thank you.

The CHAIRMAN. Thank you, sir. Mr. Moran, did you want to ask a question yet?

Mr. MORAN. Mr. Chairman, thank you, and I appreciate the gentleman from North Dakota and his line of inquiry. We struggled in a way that you, Mr. Kunder, indicated that you would expect people to struggle and try to figure out what the right answer is. Each of us recognizing the importance of—emergency aid doesn't ever eliminate the need for emergency aid, and so there is a great desire, on our part, to make certain that developmental aid occurs. I think our balance—I don't know who won this battle, but I hope that the people who are hungry were the ultimate winners. As you probably know, the outcome of the farm bill debate, the provisions in that bill are for a $450 billion box, in which you cannot tap that for emergency aid without first utilizing the Emerson Trust, and

you can't use that money for foreseen—for difficulties, disasters that are known to occur. They have to be unexpected, and you do have to notify Congress, although we no longer—we did not leave in that bill the provision that we have allow you the opportunity. So I hope we found that right mix, because the consequences of those decisions are about life and death for people around the world.

I just wanted to ask a broader question about the Department of Agriculture's viewpoint on the opportunities that agricultural research has to alleviate hunger by producing greater yields and larger quantities of crops. Is there evidence that we are on the verge of scientific research breakthroughs that will dramatically increase the ability to feed the world?

Mr. YOST. Congressman Moran, you are a little bit out of my area of expertise. I think that there are a lot of things I am told on the horizon, both in the public and private sector that can dramatically increase yields. There is no question about it, I touched on biotechnology, I touched on drip irrigation, there are a number of things, minimum tillage. There are a lot of things that can be done. Now with the economic incentive there, I think we are going to see a more amplified response in both the public and private sector. Agriculture has been in the back water, really, when you talk about the economy and the world concerns for a period of time. Mr. Kunder has talked about the diminishing roles played in their programs. Clearly in our economy, now, with it on the front page every other day of every major newspaper, I see a big change both in government and in the private sector on where resources are going to go, and where initiatives are going to begin. We have taken a renewed interest in pulling together the various agencies within the Department on this food security strategy. Our agency is trying to play point on that. We think we have an awful lot to offer and we are working with USAID and others inter-governmentally on this. It takes awhile to get it together, but to answer your question, yes I think that there are several things on the horizon that will dramatically allow increased food production, but we also have to have countries in the world that will allow that to happen. They have to have the rule of law and good governance of people who will go there and invest and allow things to happen.

Mr. MORAN. Administrator, if you would tell your colleagues at the Department of Agriculture of my interest in this question, I would be glad to hear from others as well. And I do think that it is an area that we, on the Agriculture Committee, ought to be spending more time on, on those who are concerned about hunger. I think there is significant potential and we often think about how do we divide up the resources that we have? How do we divide the loaf, as compared to how do we produce more loaves, and I think there are some significant opportunities with technology and research that advance agriculture in a hungry world. I thank you, Mr. Chairman, for the opportunity.

The CHAIRMAN. Thank you so much, Mr. Moran. That concludes this panel. We thank both gentlemen. I would like you to answer in the affirmative, if you would be willing to answer Members written questions within the next 2 weeks should they be submitted to you. Would you?

Mr. KUNDER. Yes, sir.

The CHAIRMAN. Would you, Mr. Yost?

Mr. YOST. Yes.

The CHAIRMAN. Okay, thank you. So, I encourage Members to please submit any further questions you may have in writing. The gentlemen have agreed to answer you within 2 weeks of the submission of those questions. This does complete our first panel. We thank the gentlemen very much.

We would like to invite our second panel to come quickly to the table. Mr. Sean Callahan, Executive Vice President for Overseas Operations of Catholic Relief Services, Baltimore Maryland; Dr. Andrew Barnes, Director of Food Security, Food for the Hungry Incorporated here in Washington; Mr. "Buzz" Guroff, Senior Vice President, Food Security and Specialty Crops Portfolio of ACDI/VOCA in Washington; Dr. Nicholas Minot, Senior Research Fellow at International Food Policy Research Institute here in Washington; and Dr. Theo Dillaha, Program Director, Office of International Research for Education and Development, Virginia Tech University. If these folks would please come to the table, we want to stay on time and we will begin our questions. Thank you very much. Mr. Callahan, you may begin with your testimony.

STATEMENT OF SEAN CALLAHAN, EXECUTIVE VICE PRESIDENT, OVERSEAS OPERATIONS, CATHOLIC RELIEF SERVICES, BALTIMORE, MD

Mr. CALLAHAN. Good morning Chairman McIntyre, Ranking Member Musgrave, Members of the Committee. My name is Sean Callahan. I am the Executive Vice President of Catholic Relief Services. We serve in over 100 countries throughout the world and are supported by over 68 million Catholics in our effort, and have been a long time partner of USAID and Food for Peace in trying to eradicate hunger globally. This hearing here today is very timely, and we very much appreciate the efforts that you have made to date. We would like to thank your leadership, not only in holding this meeting, but also in providing the leadership in food aid internationally and the recent approval of the farm bill.

We think that that is a mechanism that will help us into the future, in responding to this grave crisis. As a U.S. taxpayer and a representative who goes oversees, the leadership that the U.S. has provided in this area is very, very helpful in us having a more influential voice to those overseas in trying to eradicate hunger. People are suffering in this global food crisis and we see that not only in our own country, and our colleague agency Catholic Charities, as increased numbers of participants in their local programs. Where in the United States only ten percent of the income is used for food purchases, whereas overseas it is over 75 percent, so we understand the grave need that people are facing. People are indeed stretched and Catholic Relief Services sees that on the ground. We see that people are eating less, and in some cases making very difficult decisions on who in the family should actually eat.

Last month I was in Ethiopia and I happened to make a trip down to an area where one of our partners said people were suffering and in distress. And I went down to a site that was being

serviced by the Ethiopian church, The Missionaries of Charity, and Doctors without Border were providing medical assistance. In this area, although people were claiming there wasn't a hunger crisis in the area, 23 children had died at the site that we had served once they had been admitted to the site, and over 40 children in the area community were said to have died. Now one of the parents brought one of the children in as we were there and told us that the situation was so bad that they brought their healthy child to the center because their unhealthy child probably wouldn't make it. Another grandfather was feeding a child with a syringe because the child didn't have the ability to even drink the high protein solution that was being provided at the time. So although some countries may not admit right away that there is a crisis, certainly we are seeing it on the ground.

Unfortunately, this food crisis has deep roots, and the deep roots are complex and just can't be answered by providing additional food assistance. It is an increased demand for food, generally, an increased demand for animal protein, we are seeing higher fuel prices that are leading to this, a diversion of grain and oilseed crops that go into biofuel production, as well as commodity speculation and global climate change. We are trying to work in all of these different areas and in global climate change to try to reduce the affects that disasters have on people. It has affected not only the urban areas, but as I have just attested to in Ethiopia, also some of the rural areas where people produce.

We see at Catholic Relief Services a couple areas that we can focus on. I think there are two of them that are structural and that is developing a mechanism to better enhance and strengthen our ability to coordinate our hunger efforts in the United States. The U.S. is a leader in this area, but I am not sure that we are coordinating our efforts as we have, possibly, in the HIV/AIDS with PEPFAR and so I ask you as a Committee to look at that to see if we need to focus a greater need and a coherence in our hunger efforts. In addition to that I would say greater partnerships overseas, as we do at the civil society, and community level because this isn't something that we can solve from the outside. We need to build the local capacity and strengthen the local communities so that they are more resilient and better able to respond to shocks in their systems.

We look at four different areas for developmental assistance. One, certainly, is the global safety net which is not only saving but transforming lives as I saw personally in Ethiopia. We also need alternatives, and Mr. Fortenberry mentioned some infrastructural issues. Alternative to rain fed agriculture: One of the big problems that we see is the rain fed agriculture and so irrigation systems are crucial. A greater focus on agro-enterprise at the local level linking small farmers to markets is a crucial area. We found voucher programs that others are enticing small business people into the community so that we can actually develop a market and also the issue of infrastructure as far as roads go and transportation so that the communications are there so people can actually market their crops. Again, I would also say, alternative sources of energy are also very much needed at the local community level. Thank you.

[The prepared statement of Mr. Callahan follows:]

PREPARED STATEMENT OF SEAN CALLAHAN, EXECUTIVE VICE PRESIDENT, OVERSEAS OPERATIONS, CATHOLIC RELIEF SERVICES, BALTIMORE, MD

Good afternoon Chairman McIntyre, Ranking Member Musgrave, and Members of the Subcommittee.

Thank you for calling this very timely hearing on delivering international food aid and providing foreign agricultural development assistance. I would like to express my gratitude for providing Catholic Relief Services the opportunity to share our insights—based on our long experience of programming food aid for emergencies and long-term development, including our support of agricultural development with poor farmers around the world.

My name is Sean Callahan, Executive Vice President of Overseas Operations for Catholic Relief Services (CRS). Operating in more than 100 countries around the world, CRS is the international development and relief agency of the U.S. Conference of Catholic Bishops, drawing support from among the 68 million members of the U.S. Catholic community. And for more than half a century, we have been in a partnership with Food for Peace that has tangibly expressed the goodwill and compassion of the American people.

In my testimony, I will spotlight what I call the "Global Food Crisis" by citing the actual experiences of hungry people, including my personal observations. I will then focus on the deep roots of this crisis. Last, I will make five recommendations on food security to guide Congress in its response to the emergency: $2.1 billion for Title II, $300 million for the McGovern-Dole program, $230 million to replenish the Emerson Trust, more cash for local purchases and vouchers, and stronger partnerships with recipient nations.

Hungry People Suffer in the Global Food Crisis

As you all know, high commodity prices are affecting people in every country of the world, including our own. The average American family spends less than ten percent of its income on food, while low-income Americans spend a larger proportion of their limited resources on food. An impoverished family overseas that typically spends about half its income on food is now spending up to 75 percent or more because of the Global Food Crisis. These price increases have made food truly unaffordable to the very poor—and sometimes the not-so-poor. This desperation is fueling the urban demonstrations and riots that have been springing up around the world over the past several months. The problem for CRS relief efforts is not the availability of food, but the soaring prices that make food less and less affordable for the poor in both urban and rural settings

CRS staff around the world has heard stories of families who are stretched to the limit by the high price of food. Some are having to make do with eating less at each meal. Some are already skipping meals, or even not eating on a particular day. Few can afford to buy meat or chicken for any of their meals. The most desperate will sell off precious resources, such as a water jug, a hoe or even the tin roof of their home in order to buy food. Tragically, they may even have to decide which child or children may have the best chance of survival and which, already ill and weak, will be allowed to die. These are the agonizing choices the global food crisis is forcing the poor to make.

Frequent reports from our CRS field offices document that this awful scenario is being repeated in many countries in the developing world. In some regions of Niger, families have started eating only one meal a day. In dire circumstances, some families have resorted to eating anza, a wild plant with bitter leaves, to supplement their diet. In northern Ghana, students have been taking CRS-provided lunches home to share with hungry family members. For some children, this means sharing their only meal of the day.

In southern and eastern Ethiopia, two consecutive seasons of poor rains have led to total crop failure. Many people in these areas now have nothing—literally nothing—to eat. And with food prices soaring worldwide, they cannot afford to buy the dwindling and increasingly expensive supplies in the market. As a result, we are beginning to see cases of severe malnutrition, especially in children.

I was in eastern Ethiopia last month, and I saw how the people there are already suffering. I visited a feeding site run by the Ethiopian Catholic Church and the Missionaries of Charity in a largely Muslim area where, over the previous 5 weeks, 28 children had died of malnutrition. The conditions there are already dire. They are going through a "green drought," where there was just enough rain to allow stocks to sprout 3 to 5 inches, but there is no yield.

I saw one Ethiopian parent bring a very sickly, lethargic child to the center for emergency treatment. The parent told the sisters, "I brought this child because I

thought he could make it. My weakest child is at home." Nearby, a grandfather fed his grandson sips of milk every 30 seconds from a plastic syringe.

This Food Crisis Has Deep Roots

My first reaction on seeing all this was simply to bite my lip, to contain my emotion. My second reaction was anger. How could we let this happen? But the more I observed, I realized that this was a place of hope. I saw kids being fed and stabilized, getting better. Parents were thanking the workers for saving the lives of their children. This is an area that has had good production over the past 5 years, and they just need some immediate food assistance so that they can make it until the next harvest. And much of that help is coming in the form of food aid from the American people. They also asked for help to increase their planting for the next season. But if the next rainy season is poor and the next harvest fails, these people will be even worse off.

What really concerns me about his food crisis is that it is not a blip on the screen. This food crisis is structural. Its causes are complex and are based on fundamental changes in the global marketplace. *The Economist* magazine has called these changes "The end of cheap food," in recognition of a consensus that prices will not return to pre-food crisis levels.

This food crisis will be long-lasting. And it is just beginning. Its effects are being seen first in urban areas where people cannot produce their own food and cannot absorb the steep price increases. There is widespread drought in East Africa, and there may be other crop failures this year, beginning with the massive destruction of rice in Myanmar. Farmers who are struggling to feed their families will not be able to invest in fertilizer that has doubled in price and continues to rise, so their yields will be lower. By next February, this crisis will be deeper and broader as more segments of society are pushed into poverty by the combination of higher food prices and reduced availability worldwide.

Over the long term, there are several factors that could exacerbate the food crisis, including an increased demand for food generally, an increased demand for animal protein, higher fuel prices and the diversion of grain and oilseed crops for biofuel production. In addition, there is an emerging scientific consensus that there is evidence of global climate change, and that this phenomenon is having a significant impact on global agriculture. Earlier this month, the head of the UN's Framework Convention on Climate Change said the Global Food Crisis will only worsen because of climate change, as he urged the leaders of the G8 to set goals to reduce carbon emissions within the next dozen years. It is a fact that droughts and severe storms and other natural disasters are occurring more frequently and are adversely affecting food production. And it is inevitably those least responsible for the factors leading to climate change, the poor, who will bear the brunt of its effects. In terms of the response to this Global Food Crisis, we are looking at short-term measures as well as longer term initiatives.

In the short term, CRS believes we need to get cash and food into the hands of the urban and rural poor, so people can eat. Our plan is to provide cash vouchers to help both urban and rural families afford sufficient food during the crisis, where food is available. Eligible families would receive a set amount of food vouchers to supplement their food supplies when rising prices limit their purchasing power. This approach was successfully applied by CRS in 2006 as part of a drought response in Kenya with 2,500 expectant and nursing mothers and 3,500 families with malnourished children receiving food vouchers to supplement their food resources. Where there isn't sufficient food available, we are working with Food for Peace and the World Food Programme to ensure delivery of imported food.

We are also providing an opportunity for people to receive cash for working on projects that better prepare communities to weather disasters like hurricanes or cyclones. For example, in Haiti, cash for work projects have helped to clear drainage canals that will help prevent flooding when a storm hits. We are also seeking to help farmers in the developing world by investing in seeds, fertilizer and other materials that will help them in the next planting season. For example, we have used a voucher approach to enable rice farmers in Burkina Faso to acquire both improved seed and fertilizer in order to boost production of this urban staple that is in such short supply. In Ghana, Senegal, Mali and Nigeria we are hoping to expand this approach, and we have a proposal waiting for funding to expand production in 16 countries across Africa, and to move from rice to pulses and eventually to roots and tubers such as cassava.

Unfortunately, within the current food aid framework, there are not enough cash resources available from Food for Peace to fund these types of programs, especially at the scale that is needed. In addition to using valuable food aid resources, CRS will also be devoting private resources to fund some of these short-term measures.

This Global Food Crisis is bigger than food aid alone. The U.S. Government should provide much more cash in the International Disaster Assistance and Development Assistance accounts to complement current food aid efforts.

In the longer term, CRS agrees with the general consensus among international PVOs that there must be a much more robust investment in agricultural productivity and market infrastructure in the developing world to reverse the decade-long decline in aid for agriculture. Ironically, the food crisis presents us with an opportunity to make a major impact in the fight against extreme poverty, particularly in Africa. Timely initiatives that increase agricultural productivity and expand small farmers' access to markets could go a long way toward easing the suffering caused by hunger. As Pope Benedict XVI said in his message to last month's FAO summit on food security:

> Hunger and malnutrition are unacceptable in a world which has, in fact, levels of production, resources and knowledge sufficient to put an end to such dramas and their consequences. The great challenge of today is to 'globalize,' not just economic and commercial interests, but also the call for solidarity, while respecting and taking advantage of the contribution of all components of society.

Congress Can Help To Reverse the Global Food Crisis

The response by Congress to the Global Food Crisis has already been substantial, and I must commend you for this. The 2008 Farm Bill will greatly help us in this fight against global hunger. I would in particular like to commend Chairman Peterson and Ranking Member Goodlatte for their bipartisan leadership in crafting the 2008 Farm Bill. A number of initiatives that strengthen food aid and food security were included in the Trade Title that was enacted into law. Perhaps the most important of these is the $450 million safebox for developmental food aid. CRS views this provision as an important first step in reshaping United States international food and agriculture assistance policy and increasing global food security. United States international food and agriculture policy must integrate Title II, McGovern-Dole, and regular bilateral and international agricultural programs, while continuing to provide adequate and practical resources for emergencies.

I must point out, however, that the structural changes in commodity prices will likely erode any increases to developmental food aid in the safebox. The volume of commodities that can be procured and shipped will continue to decline as prices of food, fuel, and transportation skyrocket. Even with the recent supplemental appropriation, Food for Peace is not in a position to provide more food aid than it did in 2007, which had the lowest volume (at 2.6 million metric tons) in many years. So, in fact, we are right back to where we started unless we take other urgent steps. We must remember that Food for Peace operates programs fighting long-term hunger in only 18 or so countries. The World Food Programme has identified more than 30 countries that are now affected by the current Global Food Crisis.

Moreover, as part of a broad Catholic coalition working on the farm bill, CRS had sought real price support payment reform, especially to level the playing field for poor small farmers in our partner nations so they can compete fairly and help their countries respond to the global food crisis. A major opportunity for real reform was lost and what functions as a subsidy system continues to help those who need it least instead of those who need help the most, both in the United States and abroad.

At the same time, we would like to thank the Congress and the Administration for acting to pass the FY 2008/2009 Supplemental Appropriations Act. It will provide vitally needed resources to begin an emergency response, as well as to continue developmental food aid programs that build long-term food security.

Looking ahead, we would like to ask you to work with your colleagues on the Appropriations Committee to help enact the following five initiatives build food security:

- First, in addition to the $395 million included in the supplemental, we recommend that Congress fund the FY 2009 regular appropriation for Title II at $2.1 billion. This appropriation will bring the total appropriation for FY 2009 to $2.5 billion, the maximum level authorized in the farm bill. A level of $2.5 billion also ensures that we can provide enough food aid to match closely the average tonnage level of the last 5 years of 2.77 MMT (assuming a cost of $700 per metric ton). Only robust funding will fill the safebox and maintain the U.S. contribution to global food aid, while ensuring that we can respond to additional needs and ever-rising prices.
- We also recommend that Congress provide complementary funding of $300 million for the McGovern-Dole Nutrition and Education program. This level would equal the amount that would be authorized by the Global Food for Education

Pilot Program. It would ensure that the McGovern-Dole program could also keep pace with rising food aid costs while also responding more completely to the rising demand for integrated education and nutrition programs.

- Third, the Bill Emerson Humanitarian Trust complements regular Title II emergency aid as an important reserve for responding to acute hunger. We urge Congress to replenish $230 million, the amount withdrawn in April and May of this year to address the current food-price crisis. We need an incremental replenishment now or the next withdrawal likely will deplete the Trust, the most timely and flexible resource for handling unanticipated food emergencies.
- Fourth, the Administration and Congress must also recognize the need for cash resources as a necessary complement to commodities. In addition to new cash resources included in the 2008 Farm Bill, we urge you to work with your colleagues on the Appropriations Committee to ensure that cash resources are provided in the International Disaster Assistance and Development Assistance accounts. We direly need cash to buy food locally or to support voucher and food-for-work programs, as may be appropriate.
- Finally, we need to build stronger partnerships with the hungry and poor overseas. Money alone will not solve the problem of food security. We need real commitments from beneficiary nations to energize their own resources in the fight against acute and chronic hunger. We also need to rely on private voluntary organizations like CRS because we have durable and effective partnerships with the poor overseas. We further need to ensure that we integrate all food security programs in close cooperation with recipients and host governments. Such integration includes using cash wisely and making effective investments in agricultural development.

In conclusion, I want to once again thank you, Chairman McIntyre, and all the Members of the Subcommittee for your leadership on food security in the 2008 Farm Bill and for holding this hearing on responding to the needs of the hungry around the world. At Catholic Relief Services, we believe that the current food crisis will add another 100 million people to the 850 million people already suffering from hunger. This troubling reality requires the continued and augmented leadership of the U.S. Government in providing for both chronic and acute hunger needs.

I would be pleased to respond to any questions that the Committee may have.

The CHAIRMAN. Dr. Barnes.

STATEMENT OF ANDREW BARNES, PH.D., DIRECTOR OF FOOD SECURITY, FOOD FOR THE HUNGRY, WASHINGTON, D.C.; ON BEHALF OF ALLIANCE FOR FOOD AID

Dr. BARNES. Mr. Chairman, thank you for the opportunity to testify on food aid during this period of global food crisis. I am the Director of Food Security for Food for the Hungry and I am testifying today, on behalf of the Alliance for Food Aid, an alliance of 14 PVOs. We are most grateful to Congress for providing $850 million of emergency supplemental funding for 2008 and $395 million of advanced funding for 2009. It is further proof that the United States is a long standing global leader in providing food assurance—food assistance.

However, we feel that in light of the global food crisis, even greater funding will be needed for developmental food aid. Due to the crisis, an additional 100 million people are facing food shortages. We hear 130 million today. Many of these people are in Ethiopia where I served as Food for the Hungry's Country Director for the past 4 years. I returned to the United States last month. Therefore, I will focus my discussion on food aid in the developing crisis on my experience in Ethiopia, which I feel is very relevant across Africa.

Ethiopia's farmers, like many in Africa, survive on small, highly eroded farms while facing frequent droughts. Food crises occur annually. To survive during these periods, families many times, need

to sell assets, including agricultural tools and this results in long term reductions in productivity. The innovative Title II funded Productive Safety Net began in 2005, and was designed to alleviate the consequences of these annual food shortages. This program helps the poor before they must use destructive strategies to survive.

American PVOs, Food for the Hungry included, have used Title II resources to work with communities to prevent annual food shortages and to build productive community assets. These food for work generated assets are being linked to other agricultural programs and have resulted in increased agricultural productivity and the lives of many have been greatly improved. In spite of the success of this safety net, the global food crisis has hit Ethiopia very hard and this year an estimated 10.4 million people, approximately 12 percent of the population, are in need of assistance. Three factors have combined to make this crisis worse than any crisis in recent years.

First, very low crop yields have resulted from extremely poor rains in 2007 and 2008. Second, the cost of wheat and other staples has more than doubled and local market prices, surprisingly, are now higher than global market prices. Third, the supply of food in Ethiopia's emergency food reserve is very low. Much of this food, which is set aside to help in cases of emergency, has been sold in an attempt to stabilize the rising commodity prices. This action has greatly reduced the reserves of food stocks and very little emergency food is currently available in the country. Without this safety net, the current situation would be much worse than it is. It has greatly improved the lives of millions, but the current food crisis has the potential to undermine this progress.

Consequently, PVOs have proposed an emergency program to USAID and resources are being mobilized. Rapid mobilization is critical to save lives. The question is, where do we go from here? Across the globe, long term solutions are needed. Innovative food-based development programs need to be expanded to other countries. Kenya, for example, would greatly benefit from a safety net type program. Unfortunately, important Title II programs in Kenya are ending this year because of limited funding.

Food aid must be linked to long term strategies to improve nutrition, agricultural productivity and to build self-sufficiency. Food for development is critical for this and we thank this Committee and Congress for setting minimum levels of Title II funding. However, we encourage that $500 million of Title II funds be made available, annually, for non-emergency developmental programs, in order to reduce the suffering during this global crisis.

In conclusion, Mr. Chairman, because of the current global food crisis, developmental food aid funded by the United States of America, is needed now, more than ever. I thank you and I will be pleased to answer any questions.

[The prepared statement of Dr. Barnes follows:]

PREPARED STATEMENT OF ANDREW BARNES, PH.D., DIRECTOR OF FOOD SECURITY, FOOD FOR THE HUNGRY, WASHINGTON, D.C.; ON BEHALF OF ALLIANCE FOR FOOD AID

Food Crisis in the Horn of Africa

The United Nations reported on July 11th that approximately 14 million people in the Horn of Africa (Ethiopia, Somalia, Eritrea, Djibouti, Uganda and Kenya) are facing an unprecedented food crisis. These countries are suffering from both rapidly rising food costs and an extensive drought. The 14 million includes 1.2 million pastoralists in northern Kenya, 700,000 Ugandans, and approximately 2.6 million people in Somalia. However the vast majority are in Ethiopia, which has 10.4 million individuals facing an acute lack of food.

The situation in Kenya is typical for the region. In Kenya drought, high fuel prices and political instability have contributed to the food crisis. The impacts of the food crisis are being felt in both urban and rural areas but the urban areas are facing the greatest difficulties. The country is being hit with increased inflation, increased costs of production, and lower crop production in 2008. Food prices for staples have risen rapidly; the price of corn flour has risen by more then 40%. These price increases are particularly hard on the poor who already spend a large portion of their income on food. To survive in this situation many are pulling children out of school and families skipping meals. Increased prices for fertilizers and fuel have resulted in a 50% increase in land preparation costs making land preparation less affordable and the results will be lower agricultural production. The reduced production will obviously extend and increase the intensity of the crisis.

I served as Food for the Hungry's Country Director in Ethiopia from June 2004 until June 2008 when I took the position of Director of Food Security with Food for the Hungry in Washington. The majority of my comments will focus on Ethiopia because of my experience in that country.

Ethiopia's Productive Safety Net Program

Ethiopia's economy and its people remain largely dependent on subsistence farming. This dependency has proven to be very problematic because of a number of factors including high variability of rainfall from year to year. However frequent droughts are not the only factors contributing to Ethiopia's food security problems. The average farmer works to feed his or her family on less than 2 acres of land and this land is often over cultivated and subjected to intense soil erosion. Ethiopia's population growth remains very high with an annual rate of approximately 2.4%, causing further reductions in farm size. As farm size decreases the intensity of agriculture increases contributing to further land degradation and soil erosion. These perennial problems make Ethiopia one of the world's poorest countries. Ethiopia's children bear the brunt of this poverty; approximately 50% of children under the age of 5 are moderately to severely stunted.

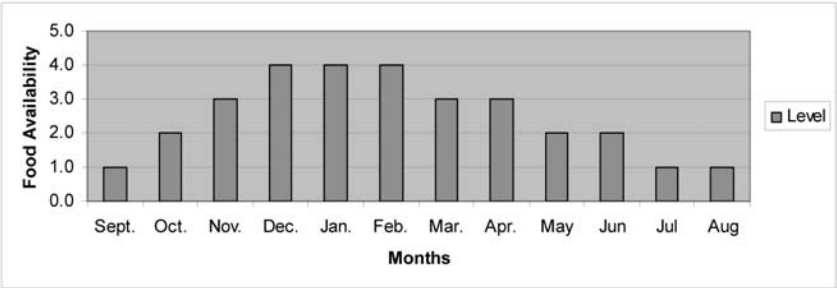
Donors (including USAID), the Government of Ethiopia and PVOs have worked together to limit the adverse affects of this situation. The drought of 2002–2003 resulted in 21% of Ethiopia's population needing relief aid. The U.S. responded generously and many lives were saved. While saving lives is obviously necessary, those interested in Ethiopia's future realize that more must be done to break the vicious cycle of drought and poverty.

Approximately 8.5 million people, ten percent of Ethiopia's population are chronically food insecure (face annual food deficits). These people are very vulnerable to the negative consequences of any variability in rainfall or other negative events. During an emergency situation their ability to survive depends on the "mining" of their already limited capital and assets including, physical assets (tools and oxen), natural assets (land and water) and human capital (education and labor). The mining of assets occurs when families take last resort actions such as taking children out of school, or selling productive assets and household goods in order to survive. These survival strategies result in *long-term* negative impacts. After the drought has passed, these families must rebuild their capital to become productive again; consequently, the economic impacts of a crop failure are long-term and result in *lifelong reductions* in earnings. With each shock, families and communities become less able to cope and fall farther into food insecurity.

Before the introduction of the Productive Safety Net in 2005 a large portion of food aid was programmed "on the fly". Food aid appeals were made based on annual crop assessments. The timing of these assessments and appeals made it difficult to receive the food aid on time and many people had to sell assets to survive until the food arrived. Also the food for work activities associated with these annual appeals were hastily planned and the quality of the activities was in many cases less than desired. Truly, a new approach to programming food aid was needed for the lives of these food insecure households and communities to improve.

Ethiopia's recent history makes it clear that weather related problems and annual food shortages will continue to occur regularly in the future. Consequently, the Productive Safety Net Program (PSNP) was designed with the expectation of these annual food shortages. In the Productive Safety Net food aid is program based on long term historical needs and in a typical year no emergency appeal is need beyond the programmed PSNP resources. In this program the food aid is planned in advance and made available during the annual hunger period; therefore the safety net helps the chronically food insecure communities *before* the onset of the food shortage season and *before* they must use negative coping strategies. By eliminating the need to sell scarce assets to survive the food shortage season, the hard hit communities are able to retain and build upon their asset base. Through this innovative program American PVOs using Title II resources are working together with local communities to prevent annual food shortages, build community assets that will contribute to long term productivity and reduce the need for poor families to sell assets to survive until next year.

The following figure represents a generalization of food availability throughout the year for a high-land community in Ethiopia. Food availability begins to increase in October when the harvest begins. It peaks in December but then begins to decline from March to June or July when it reaches the low point. It remains low through September and then climbs again at the start of the new harvest.



The Productive Safety Net Program is based on this food availability calendar. From January to June communities involved in the PSNP work on previously designed "Public Works" that build community assets such as soil conservation systems, irrigation systems, roads etc. They then receive food as payment for their labor during the hunger period later in the year.

The lives of the safety net participants have been greatly improved. Families in the program no longer need to "mine" personal assets to survive the normal annual food deficient period. Community assets are being constructed through food for work activities and many of the assets are being synergistically linked to and utilized by other agricultural and food security programs to improve productivity and income.

Graduation from the program is the ultimate goal of the PSNP and will result in the reduction of the number of households requiring external food aid and assistance. As community assets are built and are linked to other agricultural and income generating programs family assets are protected and can actually increase. After a family's assets grow to an appropriate level graduation from the Productive Safety Net program will occur.

This program has been operating in Ethiopia since 2005. USAID is funding six PVOs (CARE, Catholic Relief Services, Food for the Hungry, REST (an indigenous Ethiopian organization), Save the Children and World Vision) to implement the Productive Safety Net in over 40 districts. The program is supported by wheat, peas and vegetable oil produced by American farmers and is partially funded by monetization of vegetable oil. Without monetization this program would lack adequate funding and be greatly reduced in scale.

The Productive Safety Net and the Current Situation in Ethiopia.

The Productive Safety Net has stabilized and greatly improved the lives of millions of people in Ethiopia. As intended community assets are being built, livelihoods are being protected and improved and the *normal* annual food gap is been filled.

The Productive Safety Net was designed to fill the food gap during an average year. In general the food gap is about 6 months long and USAID and its partner PVOs have based their programs on a 6 month hunger period, understanding that abnormal years will occur and that actions outside the Productive Safety Net will

be necessary in such a year. Unfortunately 2008 has developed into an extremely difficult year and the needs are well beyond the capacity of planned Productive Safety Net resources.

Three factors have combined to make this food crisis much worse than any seen in Ethiopia in recent history. Some have used the analogy "Perfect Storm" to describe the situation. I disagree with the term "storm" because storm implies a short term, passing event, unfortunately the developing crisis will likely continue for the long term. The three major contributors to the current situation in Ethiopia are: (1) low crop yields due to inadequate rain, (2) the soaring cost of food and (3) very low food supplies in Ethiopia's Emergency Food Security Reserve. Past emergencies were primarily the result of the low availability of food; however this year rising food prices and low food reserves are exacerbating the problem.

Current Drought—Low Yields and Poor Harvest

In April 2008, the government and its partners released a joint document that set out the humanitarian requirements for 2008. This analysis was based on an assessment conducted in November/December 2007. As a result, the government-led multi-agency needs assessment estimated approximately 2.2 million people would require emergency food assistance in 2008. The situation however deteriorated greatly after the April report.

The performance of the seasonal rains in the highlands including the *Belg*, (rains from March to May) were very poor and the area of farmland planted declined significantly as a result of the lack of rain. Pastoral and agro-pastoral areas also experienced very limited rains resulting in greatly reduced availability of pasture, reduced animal productivity, increased disease and many livestock deaths. Poor rains have also affected root crop production in southern Ethiopia where they make a significant contribution to the food security of many communities.

Rising Food Costs

The Central Statistical Agency of Ethiopia reports that general inflation is running at over 20% annually and food prices have risen by over 40% in the past year. However, the prices of some staples such as wheat and corn have more than doubled and the price of cooking oil has increased by about ⅓. Local cereal prices have now become higher than global market prices. According to the World Food Programme, imported wheat is currently cheaper than the local price of maize and sorghum. The current local price of wheat is U.S. $660/MT compared to import parity of U.S. $425/MT.[1] In Food for the Hungry program areas corn has increased from $250 per ton a year ago to $650 and barley has increased from $150 per ton to $450 per ton.

These rising food costs are causing great hardships around the country but especially for the urban poor. In an attempt to reduce the impact of the rapidly rising food costs the Ethiopian Government has been selling staples such as corn at subsidized prices to the urban poor.

The Government of Ethiopia has also restricted export of cereals and local purchases by aid agencies, in an attempt to control inflation of prices. It is believe that the government is planning to import cereals to be sold in major cities with the intention of stabilizing the market situation in Ethiopia.

Unfortunately this situation is likely to get worse as the hunger season (April to September) progresses. The *belg* harvest is expected to be very poor which contributes to the expectation that price will remain very high until the next major harvest in October.

Low Stocks in the Emergency Food Security Reserve

The Emergency Food Security Reserve Agency (EFSRA) was set up in Ethiopia as a source of food to be stored and released when emergencies like the current food crisis occur. The EFSRA has been every effective and has allowed rapid responses to previous food shortages. Government agencies, PVOs, and others borrow from the food reserve while waiting for food shipments to arrive from abroad or for food to be purchased locally if it is available.

The EFSRA has been a very important component of the emergency response system in Ethiopia, however this year its stocks are very low. The Government of Ethiopia's attempt to stabilize food prices is one of the major reasons for the low stock levels. As stated above the government has been selling staples such as corn at subsidized prices to the urban poor. These commodities have been sold from the EFSRA and this attempt to stabilize prices has resulted in a depletion of inventory. Consequently, there have been "pipeline" breaks in food supplies for both the emergency response and the Productive Safety Net. Early in 2008 Food for the Hungry tried

[1] World Food Programme.

to borrow 8,000 tons from the reserve but was only able to obtain 5,000 because of limited stocks.

The situation is critical. The need for emergency food has increased to over 400,000 tons and the food reserve is well below its minimum desired level of 100,000 tons and most agencies are being told food is unavailable for borrowing.

According to the recent assessments by the government of Ethiopia the total number of individuals that will require emergency food assistance is 10.4 million people. Of this total 4.6 million will be individuals who are not involved in the Productive Safety Net and will require 5 or 6 months of assistance. The remaining 5.8 million people are in the PSNP and will need an extra 3 months of assistance because of the failed *belg* rains (rains from March to May). These numbers are expected to increase after the completion of the Ethiopian government led multi-agency assessment of the *belg* rains.

Solutions

Short Term Needs and Solutions

The Productive Safety Net has been successful and greatly improved the lives of millions of people since its startup in 2005. Because of the USAID Title II funded safety net communities and families have been able to build assets, avoid using destructive coping strategies and have moved toward self sufficiency. Unfortunately the current food crisis has the potential to undermine the progress that has been made over the past 4 years. The PSNP districts that rely on the belg rains are facing an additional 3 months of limited food and will need assistance so that the progress made over the past 4 years will not be lost.

With this need in mind the PVO's implementing the PSNP with USAID resources have prepared a Joint Emergency Operation Program with Catholic Relief Services acting as the lead agency. The proposal is base on the Government of Ethiopia's recent appeal and has been submitted to USAID and is under review. Because of the above mentioned factors rapid mobilization of resources will be very important. The next few months are critical.

Long Term Needs and Solutions

Unfortunately the developing food crisis in Ethiopia and other countries in the Horn of Africa will not be quickly resolved. Long term solutions are needed. One possible solution is the increased use of monetization of food commodities in the Horn. The prices of staples such as wheat, corn and vegetable oil are soaring. Increased monetization of these commodities in the Horn may help to stabilize prices over the long run.

Innovative, long-term food aid programs such as the USAID funded Productive Safety Net Program in Ethiopia are needed in other countries. Kenya and Uganda would both greatly benefit from a long-term safety net type program. Unfortunately Kenya was recently removed from the priority country list and Title II programs in Kenya are currently shutting down. Long term food based programs would help address the food crisis and lead to development.

There also needs to be a renewed focus on increasing yields of small scale agriculture and food security in rural areas of the Horn. High food prices will provide farmers the opportunity to increase household income. To accomplish this traditional agriculture and livestock farming will need to be improved through effective agricultural extension and marketing. Example programs would be the promotion of small scale irrigation for production of high value crops, protecting and improving the capacity of the land and improving access to credit in rural areas.

In conclusion, the developing food crisis in the Horn of Africa is tragic and U.S. food aid programs are needed now more than ever. Short-term, timely emergency assistance is urgently needed to mitigate the affects of the soaring food costs and the current drought. Timely assistance will save thousands of lives. Long-term food based developmental assistance is also needed. Increased monetization of commodities in these countries may help to stabilize prices over the long run and the expansion of Title II food aid programs into other countries will help address the food crisis and lead to development.

The CHAIRMAN. Thank you very much. Mr. Guroff.

STATEMENT OF AVRAM "BUZZ" GUROFF, SENIOR VICE PRESIDENT, FOOD SECURITY AND SPECIALTY CROPS PORTFOLIO, ACDI/VOCA (AGRICULTURAL COOPERATIVE DEVELOPMENT INTERNATIONAL/VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE), WASHINGTON, D.C.

Mr. GUROFF. Thank you, Mr. Chairman, for inviting me to testify. The present world food situation is unarguably in dire crisis. Today's high food prices will add about 100 million people to the 850 million already food insecure. I presently serve as Senior Vice President at ACDI/VOCA where this month we are observing our 45th anniversary working on worldwide agricultural development and food security.

Twelve years ago I had the honor of serving as National Food Security Coordinator and participating as a member of the U.S. delegation to the World Food Summit in Rome. At that time, the U.S. Government joined the international community in committing to the reduction by half of the 850 million hungry people in the world by 2015. Regrettably, scant progress has been made on that commitment so far. I hope that the current crisis doesn't prove to be yet another opportunity for lofty rhetoric but little political will to address this unconscionable condition.

The Summit did a good job of reaching consensus that the achievement of food security will require addressing multiple factors simultaneously. There is, of course, the need to provide emergency assistance, but that must be balanced by, among other things, a significant investment in food production and rural income generation. What is often overlooked in the rhetoric of the crisis is that many of the world's farmers see, in today's rising food prices, unprecedented opportunity if they are able to develop their capacity and capture markets. I would like to use this opportunity to say a few words about our approach to non-emergency food aid, specifically P.L. 480 Title II and Food for Progress programs, which are important parts of our portfolio. When possible, we use the process known as monetization, the selling of the donated U.S. commodities, as a means of promoting entrepreneurship and fair competition. We then use the proceeds to fund a wide range of developmental programs that are designed to assist families to become self-sufficient and over time reduce the need for emergency food aid. Our programs in places like Uganda and Cape Verde are replete with examples of this.

We need to avoid being too reliant on direct distribution of food aid as a response to the current crisis. We support local purchase of food aid as a tool in the tool box, but urge that it be employed carefully with all the same disciplines that are applied to other food aid programs.

It has now been widely acknowledged that the diminution of development aid devoted to agriculture over recent decades was a terrible mistake. Almost no country has managed a rapid rise from poverty without increasing agricultural productivity. The 2009 U.S. budget proposes that only two percent of foreign aid expenditures be directed to agricultural development, the lowest level of spending in more than a decade. As part of the Coalition for Agricultural Development, we are encouraging Congressional appropriators to allocate a minimum $600 million for ag development in 2009.

Let me just mention a couple of examples of how the extra money should be spent. In Kenya, besides organizing producer groups and improving cultivation techniques, we develop market linkages and promote inter-firm cooperation. We have helped quadruple yields among beneficiary farmers while reducing costs 40 percent. This has generated approximately $133 million in earnings for our 250,000 beneficiary farmers.

A legacy of our work in Malawi is the National Association of Smallholder Farmers of Malawi, NASFAM, a member owned and run organization of over 100,000 farm families. It encourages smallholders to form village based clubs to increase farming revenues and stimulate economic development.

Mr. Chairman, in summary, food shortages, lack of empowerment of people to become self-sufficient, high prices and inefficiency in the world food economy have been ACDI/VOCA's 45 year preoccupation. We know that where livelihoods are agriculture based, food production is the economy of the economy and fundamental to progress and peace.

To conclude, I reiterate my concern that the global food crisis not be just another opportunity for hand-wringing and lofty rhetoric on the part of the international community. I hope we will do our part by providing robust funding mechanisms to make long-term sustainable agricultural development a priority again. I thank you.

[The prepared statement of Mr. Guroff follows:]

PREPARED STATEMENT OF AVRAM "BUZZ" GUROFF, SENIOR VICE PRESIDENT, FOOD SECURITY AND SPECIALTY CROPS PORTFOLIO, ACDI/VOCA (AGRICULTURAL COOPERATIVE DEVELOPMENT INTERNATIONAL/VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE), WASHINGTON, D.C.

Mr. Chairman, thank you for inviting me to testify. You are to be commended for focusing attention on the present world food situation, which is unarguably in dire crisis. Most experts are telling us that we face a profound, pervasive and persistent problem—and a growing one. Today's high food prices will add about 100 million people to the 850 million already food-insecure, and climate change may put another 50 million at risk by 2020.

I presently serve as Senior Vice President at ACDI/VOCA responsible for that organization's food security and specialty crop programs. This month ACDI/VOCA observes its 45th anniversary working on worldwide agricultural development and food security. We were founded in 1963 by U.S. farmer cooperatives in response to Congress's desire to have co-ops play a role in U.S. foreign assistance, and since then we have operated in 145 countries on behalf of USAID, USDA and other donors. Andrew Natsios, former USAID Administrator, called ACDI/VOCA the "premier agricultural development NGO in the world."

I welcome the opportunity to speak the language of agricultural development to you. Permit me to say that, unfortunately, it has almost been a "lost" language in the foreign assistance arena. This defies logic, since the main beneficiaries are the billion people who subsist on less than a dollar a day, of whom *three-quarters live in rural areas and depend on agriculture for a living.* These rural poor now have to spend about half their income on food. And productivity growth in developing country agriculture has fallen from three percent per year in the 1970s and 1980s to less than one percent today, even in the face of burgeoning populations. This is a sorry situation—all the more so because it was largely preventable.

Twelve years ago I had the honor of serving as the National Food Security Coordinator and participating as a member of the U.S. delegation to the World Food Summit in Rome. At that time the U.S. Government joined the international community in committing to the reduction by half of the 850 million hunger people in the world by 2015. Regrettably scant progress has been made on that commitment so far. I hope that the current crisis doesn't prove to be yet another opportunity for lofty rhetoric but little political will to address this unconscionable condition.

The World Food Summit did do a good job of reaching consensus that the achievement of food security will require addressing multiple factors simultaneously. There

is, of course, the need to provide emergency assistance; but that must be accompanied by, among other things, *a significant investment in food production and rural income generation.* Technological advances cannot be overlooked; they were instrumental during the Green Revolution and are just as possible and necessary today. Trade policy, as well, is of critical importance; farmers obviously need to be able to market their production at a fair price.

The strategy needs to be a balance between doing what we can—what we must—in the short-term to avoid starvation, distress and instability, but by all means redoubling our efforts toward sustainable solutions. And, as this Subcommittee surely understands, but as is so often overlooked in the rhetoric about the crisis, *many of the world's farmers see in today's rising food prices unprecedented opportunity if they are able to develop their capacity and capture markets.*

Global food production must grow by 50 percent by 2030 to meet increasing demand, as United Nations Secretary General Ban Ki-moon told world leaders at a recent conference in Rome. "Nothing is more degrading than hunger, especially when it is man-made," he said. "It breeds anger, social disintegration, ill-health and economic decline." But will the world's 450 million smallholder farmers, those on 2 hectares or less, be part of the solution? We say they must for the sake of widespread food security. Besides, leaving them out would result in greater hunger and poverty, and attendant disposal of productive farm assets, poor education, infant mortality, disease and massive out-migration from rural areas that would add to spiraling problems in overcrowded cities.

Many of the world's worst-off need direct emergency food aid. For ACDI/VOCA's part, we are not generally involved in emergency assistance. However, we selectively do food distribution in contexts where it makes sense, e.g., supplemental feeding for HIV/AIDS-affected households, and mother and child health.

Others will likely cover food aid distribution more fully. I would like to use this opportunity to say a few words about ACDI/VOCA's approach to non-emergency food aid, specifically P.L. 480 Title II and Food for Progress programs, which are an important part of our portfolio. When possible, ACDI/VOCA uses the process known as monetization, the selling of the donated U.S. commodities, as a means of stimulating trade within a country. Where appropriate, we design the process so that small traders have access to markets. By breaking up the commodities into small lots and working directly with local marketers in an auction or another sales process, we stimulate the local market, promote entrepreneurship and fair competition, and provide a more efficient and wider distribution of needed foodstuffs. ACDI/VOCA has considerable experience with P.L. 480 Title II programs in Africa and more recently in Haiti. We have monetized on behalf of NGOs such as Catholic Relief Services, World Vision and CARE. We have managed over a million metric tons of commodities.

The second prong of ACDI/VOCA's food aid approach is the use of the monetization proceeds to improve food security, promote agricultural development, improve natural resource management, establish and promote rural micro- and small-business credit institutions, and open up commercial markets for small producers as well as programs for people living with HIV/AIDS and their families. In short we and other NGOs involved in food aid undertake developmental programs that are designed to assist families to become self-sufficient and, over time, reduce the need for emergency food aid programs. Our programs in places like Uganda and Cape Verde are replete with examples of this.

We need to avoid becoming too reliant on direct distribution of food aid as a response to the current crisis. We support local purchase of food aid as a tool in the tool box, but urge that it be employed carefully with all the same disciplines that are applied to other food aid programs.

Agricultural Development

It has now been widely acknowledged that the diminution of development aid devoted to agriculture over recent decades was a terrible mistake. Since ACDI/VOCA's roots are in the Green Revolution, we couldn't agree more. Investment in agriculture in recent decades should have been a powerful tool for improving food security and reducing poverty. The World Bank calculates that for the world's poorest, GDP growth generated by agriculture is *up to four times more effective in reducing poverty* than growth in other sectors. Yet the proportion of official development assistance to agriculture has fallen to less than three percent from 18 percent of all aid in 1979.

The World Bank's 2007 World Development Report posits that almost no country has managed a rapid rise from poverty without increasing agricultural productivity. Vietnam, a graphic example, has risen from being a food-deficit country to the world's second-largest rice exporter, largely as a result of the development of its

smallholder farming sector. The proportion of people living in absolute poverty there has declined from 58 percent to 14 percent.

The FY09 U.S. budget proposes that only two percent of foreign aid expenditures be directed to agriculture. The U.S. commitment to agricultural development has declined from $489 million in 2005 to the current level of $283 million in 2008, the lowest level of U.S. agricultural development spending in more than a decade, even before adjusting for inflation. ACDI/VOCA is pleased to be playing a leadership role in a new broad-based Coalition for Agricultural Development (CFAD) which is encouraging Congressional appropriators to allocate a minimum of $600 million for agricultural development in FY09. This is the first time in history that a coalition of U.S. based private sector companies, NGOs, religious groups and others have come together to advocate for reversing the decline in U.S. spending for agricultural development.

Examples

Let me address how the extra money should be spent. ACDI/VOCA takes a comprehensive value chain approach to agricultural development and examines whether, for example, farmers are organized to understand and capitalize on markets, build their internal capacities and take advantage of economies of scale. Do they need access to microfinance to pay for fertilizer, seeds and equipment, or can they even obtain those essentials? Do they need upgraded technology, land reform, an enabling business environment, infrastructure? We identify constraints and opportunities up and down the respective agricultural value chains and, within our donors' project objectives, act accordingly to develop a sustainable local food system.

In Kenya, the poorest quarter of the population was spending 28 percent of its income and probably more now on maize. Our project there considers the crop's entire value chain in an effort to improve the lot of smallholder farmers who grow it and to provide more food. Besides organizing Kenyan producer groups and improving cultivation techniques, ACDI/VOCA develops market linkages and promotes inter-firm cooperation. We have built relations with a diverse consortium of partners and established a market information network. This year's maize business fair in Eldoret, where our new 176 page Kenya Maize Handbook was a hot item, drew 15,000 people, including many key private sector players. ACDI/VOCA has helped quadruple yields among beneficiary farmers while reducing costs 40 percent. This has generated approximately $133 million in earnings for our 250,000 beneficiary farmers.

Good business principles help make producer groups sustainable. A legacy of our work in Malawi, which ended in 2003, is the National Association of Smallholder Farmers of Malawi, known as NASFAM, still going strong today. NASFAM is a member-owned and run organization that encourages smallholders to form village-based clubs and associations to increase farming revenues and stimulate economic development. The Association has developed farming skills, purchased inputs in bulk, built its own warehouses and linked to markets in Africa and Europe for sales of its high-value peanuts and bird's eye chilis. Today NASFAM represents over 100,000 farm families and has established a commodity exchange and subsidiaries that provide business services.

Organizing for sustainability has been a hallmark of our success in Ethiopia where ACDI/VOCA helped revitalize cooperatives and founded second-tier coffee cooperative unions. These unions gained permission from the government to bypass the central coffee auction and began exporting on behalf of their members. Increased market share and traceability led to further quality improvements. Again, because the project addressed the whole value chain, it arranged finance, tractor rentals, transportation deals, representation at world coffee fora, etc. Today Sidama and Yirgacheffe coffee from these smallholders is recognized by gourmands around the world. Ethiopia's successful coffee growers are well positioned to continue putting food on the table even as food prices increase.

Conclusion

Mr. Chairman, in summary, food shortages, lack of empowerment of people to become self-sufficient, high prices and inefficiency in the world food economy have been ACDI/VOCA's 45 year preoccupations. We know that more productive farming is fundamental to the world's prospects for progress and peace, and to the extent it is market-based, the private sector can and will play a welcome and significant role.

As Senator Lugar said about the food crisis, "Our response exposes our weaknesses, but it also points the way to needed reforms." Time after time, USAID mission directors have shared with us their frustration over allocations of development assistance that de-emphasize agriculture. While the poor suffer from educational,

health and other maladies, I trust we have learned that their foremost need is food, and, where livelihoods are agriculture-based, food production is the engine of the economy.

To conclude, I reiterate my concern that the global food crisis not be just another opportunity for hand-wringing and lofty rhetoric on the part of the international community. I hope we will do our part by providing robust funding mechanisms to make long-term sustainable agricultural development a priority again. If ACDI/VOCA and its partners have the wherewithal to carry on our work, the risk of future food crises of this one's magnitude will be substantially reduced.

The CHAIRMAN. Thank you Mr. Guroff. Dr. Minot.

STATEMENT OF NICHOLAS W. MINOT, PH.D., SENIOR RESEARCH FELLOW, MARKETS, TRADE, AND INSTITUTIONS DIVISION, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE, WASHINGTON, D.C.

Dr. MINOT. Thank you, Mr. Chairman, for the opportunity to participate in today's hearing. Since January 2006, the prices of corn, wheat and soybeans on the world markets have more than doubled and the price of rice has tripled. In developing countries, food accounts for 40 to 70 percent of family budgets and staple grains represent a large share of food spending, particularly for the poor. Although many farmers benefit, the urban poor and a surprising number of rural households are net buyers and therefore are hurt by higher prices. The net effect in most countries has increased poverty and hunger.

These price hikes have been catalyzed by various factors including rising cost of oil, biofuel subsidies, depreciation of the dollar and export restrictions by some countries. Although the topic is complex and beyond the scope of this statement, I would like to clarify two points regarding the contributing factors.

First, although the effect of biofuel subsidies on the global cost of food is small, the effect on corn prices and on the cost of food for poor people in developing countries is substantial. The Council of Economic Advisors confirms estimates by IFPRI, my institution, Iowa State University and the World Bank that biofuel demand accounts for at least ⅓ of the increase in world corn prices.

Second, the evidence that speculation in futures markets has contributed to high food prices is weak. If speculation were a factor we would see rising inventories, futures prices, leading spot prices and smaller increases for commodities that do not have futures markets. But this is not the case. What are the implications of the food crisis for development assistance? I believe that development assistance needs to respond in eight ways.

The most obvious implication is that developing countries and international organizations need to devote more attention to and more resources to agricultural development. In real terms, donor support for agriculture is less than half of what it was in 1982. The U.S. Agency for International Development needs to boost its aid to agriculture, but this task is complicated by the large number of earmarks in the foreign assistance budget.

Second, there is a need to expand resources available for emergency food aid. According to the USDA, the number of hungry people increased by 122 million, or 14 percent, in 2007 and undoubtedly continues to grow this year. At the same time, high prices have dramatically eroded the purchasing power of the budget of the

world food program and other food aid programs. Furthermore, a more institutional approach for funding emergency assistance is needed, rather than the case by case allocations that are currently used.

Third, there is a need to make better use of existing food aid budgets. While other industrialized countries have taken steps to untie their emergency assistance, shifting towards local purchases and cash transfers, U.S. food aid is still largely, in kind, based on U.S. sourced food transported on U.S. flagged ships. This policy raises the cost of shipping food aid by at least $70 per ton, according to the GAO, probably higher with the current high fuel prices, as well as delaying the arrival of emergency assistance. More flexibility is needed to reduce costs and streamline U.S. response to emergency needs.

Fourth, emergency assistance should be more closely integrated with programs to increase agricultural production and invest in human capital. One promising approach is a conditional cash transfer program that provide cash transfers to poor households on the condition that children are kept in school and that family members participate in health and/or nutrition programs.

Fifth, the most effective long term strategy for addressing the food crisis is to invest in agricultural research and development, particularly in the staple food crops. Not only is this the right response to the crisis, but it makes good economic sense. Over 250 economic studies confirm that investments in agricultural research in developing countries offer very high rates of return, generally more than 30 percent per year. Furthermore, the benefits tend to accrue disproportionately to poor farmers and consumers.

Sixth, investments in agriculture research and development must be coupled with efforts to reduce the cost of marketing and storage in developing countries. Improvements in the marketing system will help distribute surpluses, alleviate local shortages and reduce volatility. This involves improved marketing infrastructure, establishing a policy environment that is conducive to the private sector, reduction in internal and external barriers to trade and identifying better ways to manage risk.

Seventh, completing the Doha Round of trade liberalization would make the global agricultural system more resilient to shocks. Additional discipline on export restrictions is needed, either as part of the Doha Round or as a separate agreement.

Finally, it is a mistake to think that one can design, in advance, the optimal long term agricultural development strategy. Agricultural policy and public investments must adapt in response to evolving conditions, and analysis provided by local researchers is more likely to be accepted, particularly if it concerns politically sensitive topics such as food prices. Thus it is essential that developing countries improve their own capacity to collect information, analyze data, diagnose problems and identify policy solutions. This concludes my statement. I would be pleased to answer any questions you may have. Thank you.

[The prepared statement of Dr. Minot follows:]

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE [Redacted]
sustainable solutions for ending hunger and poverty

The Food Crisis and its Implications for Agricultural Development

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Testimony presented to the
Subcommittee on Specialty Crops, Rural Development, and Foreign Agriculture
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Background

Since January 2006, the prices of corn, wheat, and soybeans on world markets have more than doubled, and rice prices have tripled. These price increases have contributed to 5.1% food inflation in the United States[1], but the impact on consumers in developing countries is much greater. This is because food represents a much larger proportion of consumer spending in developing countries (40-60%) than in the United States (14%) and other industrialized countries. In addition, staple foods like rice, corn, and wheat account for a larger share of the food budget in developing countries than in the industrialized countries. The result is that many families in developing countries face serious hardships. While farmers with net grain sales in developing countries benefit from the higher prices, the urban poor and many farm households are net buyers, so the overall impact is to increase poverty and hunger in most countries[2]. The food riots that have broken out in more than a dozen countries are just one manifestation of the food crisis.

Causes of the food crisis

These price hikes have been catalyzed by various factors including the rising cost of oil, biofuel subsidies in the US and Europe, the depreciation of the US dollar, export restrictions by some countries, and the imbalance between rapid growth in global income and slow yield growth . Speculation on futures markets is also blamed for the increases. The relative importance of each factor is still debated among economists, but we can draw some preliminary conclusions.

High cost of oil: The price of oil has risen from around US$ 30/barrel in 2003 to over US$ 140/barrel this month. This increases food prices by raising the cost of agricultural inputs (particularly fertilizer), irrigation, mechanized operations, and transportation. The impact is greater where agriculture is heavily mechanized, such as the industrialized countries, and where fertilizers are used intensively, including parts of Asia. In addition to increasing the cost of crop production, high oil prices make biofuels more profitable, diverting corn and oilseeds from food and feed markets. Currently, almost 30% of U.S. corn area is used to supply ethanol processors. Studies by the Council of Economic Advisors and by IFPRI estimate that the growth of biofuel production explains about 33-39% of the rise in corn prices[3]. By displacing acreage in wheat and

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[1] This refers to food inflation over the period May 2007 to May 2008. Bureau of Labor Statistics. 2008. "CPI Fact Sheet" (http://www.bls.gov/news.release/pdf/cpi.pdf).

2 Ivanic, M. and W. Martin. 2008. "Implications of higher global food prices for poverty in low-income countries." Working Paper Series No. 4594. The World Bank. Washington, DC.

[3] Lazear, E. 2008. "Response to the Global Food Crisis." Testimonry for the Senate Foreign Relations Committee on May 14, 2008 (http://www.whitehouse.gov/cea/lazear20080514.html). Rosegrant, M. 2008.

soybeans, the growth in corn production for ethanol has also contributed to tight supplies and price increases in those markets as well.

Biofuels subsidies: Ethanol production in the U.S. is supported by biofuel mandates, a tax on imported ethanol, and a direct subsidy[4]. Although some ethanol production would be profitable at current oil prices without these policies, the import tariff and subsidies raise ethanol prices and production above what they would otherwise be, thus further increasing corn prices. One study estimates that ethanol support policies alone account for one-quarter of the increase in corn prices[5].

Depreciation of the US dollar: The dollar has fallen against the euro and other major currencies, causing the dollar-denominated price of good to rise. If commodity prices had remained constant in euro terms since January 2006, the dollar prices would have increased 31%. This implies that depreciation of the US dollar explains 15-27% of the increase in dollar-denominated food prices over this period.

Export restrictions: In late 2007 and early 2008, a number of exporters responded to rising food prices by restricting grain exports to keep prices low within their countries. Rice exports have been restricted by Vietnam, India, and Egypt, among others, while wheat exports have been limited by Argentina, Russia, Kazakhstan, and the Ukraine (although the Ukraine has since lifted its ban). By further limiting traded supplies, these restrictions have played a major role in the high price of rice and, to a lesser degree, wheat[6].

Long-term supply-demand imbalance: However, these short-term "headline" causes would not have had the same dramatic effect on world markets if we had not experienced a 5-10 year period of disequilibrium, in which the growth in cereal demand outpaced the growth in cereal production. Cereal demand has been growing at 2% per year, thanks to rapid income growth in China, India, and, more recently, sub-Saharan Africa. As incomes rise, people diversify their diet and consume more meat and other animal products, increasing the demand for feed, particularly corn. Meanwhile, yield growth in these cereals has declined from 2-5% in the 1970s and 1980s to 1-2% since the mid-1990s[7]. This decline can be attributed to the declining public investment in agricultural research and development, particularly in staple grains. This imbalance between grain supply and demand has been reflected in declining global stocks since 2000. The stock-to-use ratio for grains is 13%, which is the lowest ratio since 1960[8].

"Biofuels and Grain Prices: Impacts and Policy Responses." Testimony for the U.S. Senate Committee on Homeland Security and Governmental Affairs. May 7, 2008.

[4] The biofuels mandate establishes a minimum level of biofuel production each year, set at 9 billion gallons in 2008. The tariff on imported ethanol is 54¢/gallon plus 2.5%. The subsidy is in the form of a tax credit worth 51¢/gallon.

[5] Babcock, B. 2008. "Statement before the U.S. Senate Committee on Homeland Security and Government Affairs. Hearing on Fuel Subsidies and Impact on Food Prices, May 7, 2008. Babcock estimates that removing all ethanol subsidies would reduce corn prices 13% from their current level. This represents roughly one-quarter of the increase over the past year.

[6] Von Braun, J. 2008. "High Food Prices: The What, Who, and How of Proposed Policy Actions." Policy Brief. International Food Policy Research Institute. Washington, DC. (http://www.ifpri.org/PUBS/ib/foodprices.asp).

[7] World Bank. 2008. *World Development Report 2008: Agriculture for Development.* The World Bank. Washington, DC (p 67).

[8] Schnepf, R. 2008. "High Agricultural Commodity Prices: What Are the Issues?" Report RL34474. Congressional Research Service. Washington, DC. (http://assets.opencrs.com/rpts/RL34474_20080529.pdf).

Speculation: Investors, looking for high returns, have poured money into commodities futures markets in expectation of continued price increases, leading many observers to blame them for contributing to the price increases. Some economists are skeptical, however, arguing that these transactions involve offsetting purchases and sales, representing a "bet" on the future price without directly affecting the supply or demand of the commodity[9]. Rising futures prices could *indirectly* affect the price if they persuade farmers and processors that the price will rise, inducing them to increase stocks. However, as discussed above, grain stocks have been declining in recent years, not growing. Furthermore, prices have increased just as rapidly in commodities for which speculators do not have easy access, such as edible beans, durum wheat, rice, and fluid milk[10]. To date, the evidence that speculation contributes to higher prices is weak.

Implications for agricultural development

Development assistance needs to respond to the food crisis, taking into account both the opportunities and challenges presented by the high food prices. The most obvious implication of the food crisis is for more investment in agricultural development. In real terms, donor support for agriculture is less than half of what it was in 1982 in real terms. The United States Agency for International Development needs to boost its aid to agriculture, but it currently has difficulty doing so due to the large number of earmarks in the foreign assistance budget.

In addition, the food crisis has implications for the types of agricultural development assistance that are needed. I focus on four areas which are believed to present opportunities for high returns in the context of the food crisis: 1) emergency assistance and social protection, 2) investment in agricultural research and development, 3) improvement of agricultural marketing systems, and 4) capacity development.

Emergency assistance and social protection: The food crisis calls for a revised strategy for emergency assistance. First, there is an urgent need to expand the resources available for food aid and other forms of emergency assistance. The food crisis is increasing the number of people in need of this assistance: according to the USDA, the number of hungry people increased by 122 million (14%) in 2007[11]. At the same time, the crisis has dramatically eroded the purchasing power of the budget of the World Food Programme (WFP). A large contribution from Saudi Arabia has helped WFP meet its target for 2008, but a more institutionalized system for funding emergency assistance is needed rather than the case-by-case allocations that are currently used[12].

Second, there is a need to make better use of existing food aid budgets. While the European Union, Canada, and other countries have taken steps to untie their food aid, US food aid is still required to consist of food grown in the United States and transported on US ships. This policy

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[9] Sanders, D., S. Irwin, and R. Merrin. 2008. "The Adequacy of Speculation in Agricultural Futures Markets: Too Much of a Good Thing?" Marketing and Outlook Research Report 2008-02, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign (http://www.farmdoc.uiuc.edu/marketing/morr/morr_archive.html). Paul Krugman makes similar points about the role of speculation on oil markets (http://krugman.blogs.nytimes.com/2008/06/24/various-notes-on-speculation/).

[10] Edible beans and durum wheat do not have futures markets. Rice and fluid milk have futures markets, but it is more difficult to speculate in these commodities because they are not included in the main commodity indexes.

[11] U.S. Department of Agriculture. 2008. *Food Security Assessment 2007*. Outlook Report GFA-17. USDA. Washington, DC (http://www.ers.usda.gov/Publications/GFA19/).

[12] Hoddinott, J., M. Cohen, and C. Barrett. 2008 "Renegotiating the food aid convention." *Global Governance* 14(3): 283-304

raises the cost of shipping food aid by $70/ton, according to the GAO, as well as delaying the arrival of emergency assistance[13].

Third, food aid and other emergency assistance must be more closely integrated with agricultural programs to increase productive capacity in developing countries and nutrition programs that protect poor families from hunger. One promising approach is conditional cash transfer programs that provide cash transfers to poor households on the condition that children are kept in school and that family members participate in health or nutrition programs. The idea is to combine short-term financial assistance with long-term investments in the human capital of the next generation. These programs have been shown to have high social and economic returns when well targeted[14].

Investment in agricultural research and development: The most effective long-term strategy for addressing the food crisis is to accelerate yield growth, particularly in the staple-food crops. This is necessary for cereal supply to keep pace with growing demand, thus maintaining downward pressure on cereal prices. Although private-sector investment in agricultural research is rising, it cannot fill this gap because private firms are not interested in seed that is easy to recycle from one season to the next. And yet, numerous economic studies (over one hundred to date) confirm that investments in agricultural research in developing countries offer high rates of return, generally more than 30% per year[15]. National agricultural research institutes in developing countries have experienced declining budgets since around 1990, partly as a result of ill-advised reductions in government spending associated with structural adjustment programs. Similarly, international agricultural research centers have suffered budget cuts because the international community interpreted falling food prices as a sign that food shortages were a thing of the past. Renewed support for agricultural research and development should include short- and long-term training for agricultural scientists, competitive grants for research, funding to evaluate impact, and assistance with management and organization of research institutes.

In addition, the institutions that deliver technology from the researcher to the farmer need to be strengthened. Agricultural extension services must broaden their mandate from technical information about new varieties and fertilizer application rates to include more information on prices and markets in response to the growing commercialization of agriculture in developing countries. In addition, efforts to make extension services more responsive to the needs and constraints of farmers should be supported and scaled up.

Finally, access to modern agricultural inputs, such as fertilizer and improved seed, can best be assured by developing private distribution networks. One approach is to work with agro-input dealers to improve coordination and reduce costs. Large-scale fertilizer subsidy programs are not a long-term solution, but subsidies may be justified to demonstrate the benefits of new technologies (if temporary) or for poverty reduction (if targeted to poor households). Programs

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[13] Barrett, C. and D. Maxwell. 2005. *Food aid after 50 years: Recasting its role.* Routledge Press. New York, NY. General Accountability Office. 2007. *Foreign Assistance: Various Challenges Impede the Efficiency and Effectiveness of U.S. Food Aid.* Washington, DC.

[14] Skoufias, E. 2005. *PROGRESA and Its Impacts on the Welfare of Rural Households in Mexico.* IFPRI Research Report No. 139. International Food Policy Research Institute, Washington, D.C. (http://www.ifpri.org/pubs/abstract/139/rr139.pdf).

[15] See Alston, J., C. Chan-Kang, M. Marra, P. Pardey, and T. Wyatt. 2000. *A Meta-Analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem.* Research Report No. 113. International Food Policy Research Institute. Washington, DC (http://www.ifpri.org/pubs/abstract/113/rr113.pdf). This report reviews 292 publications with more than 1,800 estimates of rates of return to agricultural research in developing countries.

that distribute vouchers redeemable at agro-input dealers help strengthen the private distribution system. This approach shows promise in some situations, but needs to be tested more widely.

Improvement of agricultural marketing systems: Higher productivity may cause local gluts and price collapses if the marketing system is not able to efficiently distribute the surpluses to consumers throughout the region and from the harvest season to the off-season. For this reason, investments in agricultural research and development must be coupled with efforts to reduce the cost of marketing and storage in developing countries. Progress is needed in the following five areas:

a) Public investment in marketing infrastructure. This includes the construction and maintenance of ports, bridges, roads, and market places. Too often infrastructure spending is biased toward urban areas, reflecting the greater political power of urban residents, but it is the "invisible" investments in rural roads that often has a higher payoff. The use of labor-intensive food-for-work programs to maintain rural roads can serve both infrastructure and poverty-reduction goals.

b) A policy environment that is conducive to agricultural marketing. This involves the establishment of a clear set of guidelines regarding the roles of the private and public sector. Private traders can assemble, transport, store, and distribute food at a lower cost than government agencies. Yet, policies in many developing countries make food marketing more risky than it needs to be. Occasional export bans, unpredictable intervention in buying and selling staple crops, vague declarations against "hoarding" or "price gouging", and impediments to cross-border trade contribute to a climate of uncertainty, which discourages investment and raises the cost of marketing at the expense of both farmer and consumer.

c) Reduction in internal and external barriers to trade. Reducing the cost of agricultural marketing within a country helps distribute surpluses to consumers, raising prices for farmers and reducing prices for consumers. The same logic applies to agricultural trade that crosses international borders, whether it is formal overseas trade or regional cross-border trade. The current food crisis provides several examples of the adverse impact of export restrictions in raising the prices paid by importers and making global food markets more volatile. Less widely appreciated is the fact that high tariffs have similar effects, raising domestic prices and exacerbating world price volatility. Industrialized countries must provide better access to their markets and eliminate tariff escalation, which more heavily protects processed goods. However, most of the potential gains from trade liberalization in developing countries depend on those countries reducing their own import barriers. Completing the Doha Round of trade liberalization would make the global agricultural system more resilient to shocks. Additional discipline on export restrictions is also needed, either as part of the Doha Round or a separate agreement.

d) Efforts to promote transparency in agricultural markets. Too often food marketing is hampered by limited access to information, little or no formal credit, and a wide range of local units of measure which prevent farmers and traders from comparing prices. Market information systems that collect and disseminate information about prices and market conditions exist but must be improved and expanded. New approaches to providing credit to farmers and traders on a sustainable basis are needed. And efforts to standardize weights and measures would promote competition.

e) Improved instruments to manage risk. Many of the government interventions that make markets unpredictable in developing countries are tied to efforts to reduce price volatility. The food crisis, by making markets more volatile, is exacerbating this tendency. Although some fluctuation in agricultural prices is inevitable, there are methods of reducing the risk

associated with this volatility. Greater attention should be given to 1) efforts to facilitate storage by traders and farmers, 2) the development of insurance based on weather indexes, and 3) the use of futures markets to hedge, thus "locking in" the price of politically-sensitive import or export commodities.

Capacity development: It is a mistake to think that one can design in advance the optimal long-term agricultural development strategy. Agricultural policy and public investments must adapt in response to evolving conditions, including those brought about by climate change, the rising demand for bio-fuels, changing diets, and urbanization. This is particularly true in the context of the food crisis because of the rapid changes in prices and market conditions. Analysis provided by international organizations may not be accepted, particularly if it concerns politically sensitive topics such as food prices. Thus, it is essential that developing countries improve their own capacity to collect information, analyze data, diagnose problems, and identify policy solutions. In particular, there is a need for more systematic and regular evaluation of policies and programs to assess their effectiveness.

Summary

The food crisis is the cumulative result of many factors, both short- and long-term in nature. Structural imbalances between grain supply and demand and declining stocks over the last 5-10 years set the stage for more recent catalysts. These include rising oil prices and depreciation of the dollar (affecting all markets), ethanol subsidies (particularly in corn markets), and export restrictions (particularly in rice and wheat markets). In response to this crisis, agricultural development strategy should give greater weight in four areas: more flexible food aid, social protection that combines short-term assistance and long-term investment in human capital, revitalized agricultural research and development systems, the improvement of agricultural marketing systems, and capacity development.

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The Food Crisis and its Implications for Agricultural Development

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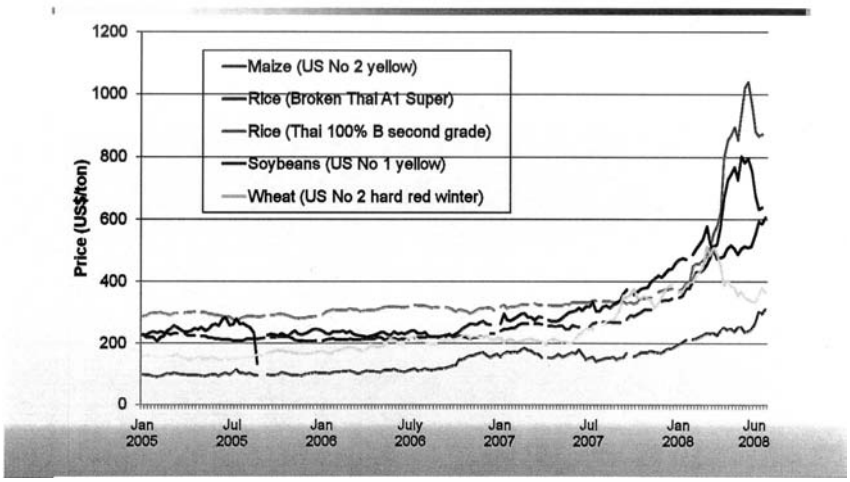
Testimony to the Subcommittee on Specialty Crops, Rural Development, and Foreign Agriculture
July 16, 2008

Food price trends



Contributing factors

- High price of oil
  - Raises cost of agricultural production & transport
  - Stimulates diversion of crop to biofuels markets
- Biofuels subsidies
  - Further stimulates demand for maize & oilseeds
- Dollar depreciation
  - Accounts for 30% increase since Jan 2006
- Export restrictions by some countries
  - Vietnam, India, and Egypt limit rice exports
  - Argentina, Russia, and Kazakhstan limit wheat exports
- Imbalance between demand and supply growth
  - Cereal demand growing at 2% per year
  - Yield growth has fallen to 1-2% per year

Minor factors

- Financial speculation
  - No good evidence that speculation in futures markets have contributed to higher agricultural commodity prices
  - Price increases as high for commodities for which speculators do not have easy access: rice, durum wheat, and edible beans
- Supply shocks
  - Drought in Australia, cyclone in Burma, and floods in US have had only minor effects on commodity prices.

The CHAIRMAN. Thank you, Dr. Minot. Mr. Dillaha.

STATEMENT OF THEO A. DILLAHA III, PH.D., P.E., PROFESSOR OF BIOLOGICAL SYSTEMS ENGINEERING AND PROGRAM DIRECTOR, SUSTAINABLE AGRICULTURE AND NATURAL RESOURCE MANAGEMENT (SANREM) COLLABORATIVE RESEARCH SUPPORT PROGRAM (CRSP), OFFICE OF INTERNATIONAL RESEARCH, EDUCATION, AND DEVELOPMENT, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, BLACKSBURG, VA

Dr. DILLAHA. Thank you Chairman McIntyre and——

The CHAIRMAN. Dr. Dillaha, sorry. Thank you.

Dr. DILLAHA. That is fine. Thank you Chairman McIntyre, Members of the Subcommittee. I speak today as a University Faculty member representing Virginia Tech and its Office of International Research Education and Development. Personally, I have been engaged in international development for a few decades as a Peace Corps volunteer, an ACDI/VOCA volunteer, an Engineers without Borders volunteer, a university faculty member and currently I serve as the Program Director of the USAID funded Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program, one of the CRSPs. There are eight other CRSPs. Our primary objective is to build developing country capacity to address their own food security needs. We do this by working in partnership with the host country's scientists and institutions. And we also develop new technologies to help USAID, ACDI/VOCA and others that are engaged in addressing agricultural problems in developing countries.

To improve U.S. food assistance, I would recommend the following three short-term actions. Fully fund the World Food Programme and other USAID—other U.S. programs, and improve the

effectiveness of these programs by removing earmarked and tied aid requirements. This has been mentioned previously. I would also request that we reconsider some U.S. policies, such as our biofuel program and a 1986 Bumpers Amendment, which contribute to the food security crisis. I would also recommend facilitating the immediate provision of seeds and fertilizers for countries that are most affected by the food crisis.

To improve U.S. agricultural development assistance, I recommend the following, intermediate term actions to help developing countries solve their own problems and improve food security. First, we need to expand agricultural research and development capacity in developing countries. We can do this by restoring funding for USAID's Collaborative Research Support Program, the CGIAR and other international agricultural research centers, the USDA Foreign Agricultural Service and other U.S. agricultural university engagement programs with their developing country partners. In particular we need to support long-term collaborative research programs which build developing country agricultural research and development institutions.

Second, we need to expand agricultural education programs for host country nationals to increase the capacity of food-insecure developing countries to solve their food security needs through education of their scientists and policy makers and we need to do this at U.S. universities. Adequate funding is needed for programs such as the USAID Collaborative Research Support Program, Fulbright Humphrey, Borlaug and numerous programs that work in this area, the USDA Foreign Agricultural Service and particularly the establishment of these long term partnerships between U.S. agricultural universities and developing country institutions that is being discussed.

Long-term U.S. training has decreased dramatically since 1980 from approximately 15,000 host country students to less than 1,000 last year. This is a disaster for developing countries and it also decreases U.S. influence abroad. We need to support the replication of the U.S. Land-Grant University model abroad. Combining agricultural research, teaching, and extension missions into a university led system is largely responsible for the success of the U.S. and, even now, the Indian agricultural systems. This system, or something like it, should be supported in other countries.

Most importantly, as we have heard repeatedly today, we need to dramatically increase agricultural development assistance. A disproportionate amount of U.S. foreign assistance supports temporary emergency food aid. We must increase agricultural development assistance so that developing countries can feed themselves. We also need to restore the agricultural development capacity of USAID. We can do this by recognizing that, as it has been pointed out several times today, that agricultural development is the first step in economic growth by establishing agricultural production and food self-sufficiency as a USAID priority. It is not now. By doubling USAID and other U.S. foreign agricultural assistance support, by fully staffing USAID and hiring program managers with agricultural expertise, and it sounds like we are making some progress in that area, and by doubling USAID central funding for

agricultural programs and by providing increased flexibility for those funds by reducing Congressional earmarks.

Finally, we need to fully implement Title XII of the Foreign Assistance Act, which calls for full participation of U.S. agricultural universities and USAID efforts to improve world food production and nutrition.

In conclusion, I thank the Committee for giving me the opportunity to testify. There are no quick-fix silver bullets or easy answers to the current food security crisis. Solutions will take time, but the time to act is now. Please make sure that U.S. food aid and foreign agricultural assistance investments benefit both the U.S. and our developing country host partners by ensuring that each investment reduces developing country dependence on foreign food aid, builds developing country capacity to solve their own problems and strengthens positive attitudes in developing countries regarding U.S. policies, actions and intentions. Thank you.

[The prepared statement of Dr. Dillaha follows:]

PREPARED STATEMENT OF THEO A. DILLAHA III, PH.D., P.E., PROFESSOR OF BIOLOGICAL SYSTEMS ENGINEERING AND PROGRAM DIRECTOR, SUSTAINABLE AGRICULTURE AND NATURAL RESOURCE MANAGEMENT (SANREM) COLLABORATIVE RESEARCH SUPPORT PROGRAM (CRSP), OFFICE OF INTERNATIONAL RESEARCH, EDUCATION, AND DEVELOPMENT, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, BLACKSBURG, VA

Thank you, Chairman McIntyre and distinguished Members of the Subcommittee, for inviting me to participate in today's hearing. I welcome this opportunity to testify before you on the need for a new approach to U.S. food aid and foreign agricultural assistance.

I am speaking today as a faculty member representing Virginia Polytechnic Institute and State University and its Office of International Research, Education, and Development (OIRED). OIRED manages a research portfolio of over $46 million in 44 countries around the world. Current research projects involve forestry and natural resource management, integrated pest management, sustainable agriculture, watershed management, and micro-enterprise development and higher education capacity-building projects Haiti, Nepal, and Oman. Twelve full-time faculty and nine staff members support these efforts in partnership with over 40 U.S. university partners and a similar number of developing country institutions. The majority of these activities involve agricultural development and are funded by USAID. Personally, I have been engaged with the issues of international development for over 3 decades as a Peace Corps volunteer, a U.S. university faculty member involved in agricultural development and environmental protection, and currently as the Program Director of the Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSP) managed by OIRED and sponsored by the U.S. Agency for International Development (USAID). The SANREM CRSP is a long-term, $2.4 million per year program that sponsors applied research to develop new knowledge and technologies to improve agriculture and natural resource management.

Even before the current global food crisis, there were numerous calls for reviewing and improving the effectiveness of U.S. food aid and foreign agricultural assistance programs. Now with the food crisis and the potential for pushing at least 100 million people in developing countries back into poverty due to rising food prices, the need for program reform is even greater. I urge you and other Members to act quickly and responsibly to address this crisis. My recommendations are based on my personal experiences in international development and discussions and with colleagues involved in international development as well as developing country scientists, policymakers, and aid recipients.

The overarching objective of the following recommendations is to increase the capacity of developing countries to pull themselves out of the food crisis spiral. I recommend that you consider the following actions:

Immediate

1. Fully fund the emergency food assistance programs of the World Food Programme and USAID's other Food for Peace activities, improve the effectiveness

of these funds by removing earmarked and tied aid, and support World Food Programme and USAID efforts to purchase food locally where possible. Wherever possible, require strong linkages between emergency food assistance and agricultural assistance programs.

2. Do not transfer foreign agricultural assistance funds to emergency humanitarian relief efforts.

The practice of reducing foreign agricultural assistance programs to provide emergency humanitarian relief is self-defeating and delays and/or inhibits developing country self-sufficiency in food production. After the successes of the Green Revolution we assumed that the "food" problem was solved and funding to increase agricultural productivity to keep pace with growing populations and demand declined dramatically. Today, we are faced with recurrent food crises in many developing country populations and with current policies and aid programs, no long-term solutions are in sight.

3. Assess and change policies contributing to the global food security crisis whose humanitarian and economic costs outweigh their benefits. Key policies that need to be reviewed include:

- Biofuel programs competing with grains and oilseeds used for food.

  Current short-term U.S. goals for biofuel use are not reasonable in light of their effects on food prices. Deadlines need to be scaled back until biofuels can be supplied without competing with food crops; subsidies for biofuel based on food crops should be reduced or eliminated; and non-food crop biofuel research (e.g., cellulosic ethanol) should be greatly expanded. While I congratulate the Committee for recognizing the importance of transitioning to advanced biofuel through the introduction of a new producer credit for cellulosic ethanol and for providing mandatory funding for cellulosic infrastructure expansion, there is certainly more that needs to be done. For one, a 6¢ reduction in the ethanol blenders credit does not do justice to the immediate need to move U.S. biofuel production away from an unsustainable corn based system.
- Repeal the 1986 Bumpers Amendment, which prohibits the use of foreign assistance funds in developing countries on crops that if exported, would compete with U.S. agricultural commodity exports.

  This regulation is hampering agricultural development and U.S. influence in some of the poorest countries. Recognition that it is not helpful for development is illustrated by the fact that it is slowly being relaxed, e.g., U.S. assistance to cotton production in West Africa.

4. Facilitate the immediate provision of seeds and fertilizer for countries most affected by the food crisis by using 'smart' subsides friendly to market development in the upcoming planting seasons.

Intermediate to Long Term

Increase the ability of developing countries to feed themselves and reduce their dependence on external food aid through capacity building.

From the U.S. university perspective, the major agricultural development problem and a fundamental cause of the current food security crisis is the lack of effective capacity of developing country institutions and personnel to solve local problems and to work with U.S. and other international scientists and development specialists on more complex problems. Local capacity building is the cornerstone of sustainable development. Efforts to build local capacity and solve local problems have been hampered because:

- U.S. universities have had few effective and stable long-term developing country partners with which to build capacity and few resources to do so.
- Long-term partnerships are necessary to address sustainability problems because management strategies for agriculture and natural resources are dynamic, constantly presenting new challenges and opportunities that require new, innovative and collaborative research.
- U.S. universities simply cannot return again and again each time a new challenge appears to rebuild developing country problem solving capacity that was lost and that is continually needed for responding to evolving needs before they become critical.

5. *Expand agricultural research:* For the past forty years, the Green Revolution and other public and private sector agricultural research allowed food production to keep pace with population growth and increasing demand and saved

100s of millions of people from starvation. As a result, governments, policymakers, and others concluded that the "food problem" was largely solved and that the remaining issues were rather marginal technology transfer, distribution, and marketing problems. Resources for new technology development and systems-related research declined in real dollars. As a result, agricultural production is not keeping pace with rising demand, food prices are increasing dramatically, and the numbers of people in poverty and at risk of malnutrition and starvation are increasing.

Needed investments in agricultural research include:

- Reversing declines and restoring funding for USAID's Collaborative Research Support Programs, the Consultative Group on International Agri cultural Research (CGIAR) and other international agricultural research centers, the USDA-Foreign Agricultural Service, and other programs that engage U.S. universities agricultural research and education in developing countries.
- Long-term research programs with well-defined goals rather than short-term projects. Long-term programs not only solve current food production problems, they also build human and institutional capacity to solve future problems.
- Creation of developing country agricultural research institutions (national and/or regional) that can address local and regional agricultural research needs.

To solve the food security crisis, researchers from the U.S., other developed counties, and our developing country partners must work together to provide unbiased scientific knowledge, which policymakers and development specialists can use to address the food security crisis. Critical issues include:

- New agricultural production technologies and methodologies;
- Sustainable food production given accelerating soil, water, and ecosystem deterioration;
- Lack of well-trained local researchers;
- Extension services for technology innovation and transfer;
- Economics (poverty cycle, markets, infrastructure, trade issues including U.S. domestic agriculture policy);
- Storage and post harvest food losses (up to 50% in some cases);
- Impacts of global warming and climate change;
- Control of invasive species and plant pests;
- Biotechnology;
- Outmoded land tenure systems;
- Gender and resource access issues;
- Corruption and governance issues;
- HIV/AIDS and other diseases;
- Increasing population pressure;
- Food aid and delivery mechanisms;
- Food transport systems; and
- Ecosystem services.

6. *Expand agricultural education:* Increase the capacity of food-insecure developing countries to solve their food security needs by educating developing country agricultural scientists and policymakers at U.S. universities.

The principal investment needed in long-term agricultural education is adequate funding for training and capacity building programs conducted by:

- the USAID Collaborative Research Support Programs,
- U.S. programs such as the Fulbright and Humphrey Fellow and Scholar Programs,
- the USDA-Foreign Agricultural Service, and
- long-term partnerships between U.S. land-grant universities and colleges and developing country educational, research, and extension organizations.

Prior to 1990, the U.S. was the world leader in educating developing country scientists and policy makers; however, U.S. efforts in this area have declined

dramatically. Long-term training in the U.S. decreased from approximately 15,000 per year in the 1980s to approximately 1,000 last year. Long-term degree training in the U.S. also benefits the U.S. by exposing future developing country leaders to the U.S. system and creating leaders who understand and are supporters of U.S. policy and actions. The decrease in training of Africans has been particularly devastating for agriculture in Africa, as a significant portion of U.S. educated African scientists and policymakers have either died of AIDS or retired. Because of the decrease in training, there is now a dearth of qualified people for agricultural research, development, and leadership positions. In Africa, China has replaced the U.S. as the premier leader in long-term higher education, and we have lost one of our most effective means of influencing future African leaders.

7. *Support for the U.S. land-grant university model under Title XII:* Combining agricultural research, teaching, and extension missions into a university led system has been largely responsible for the success of U.S. agriculture. A similar system based on the U.S. model is also largely credited with the success of agricultural development efforts in India. This success is due to the following factors:

- The U.S. land-grant university approach to agricultural development facilitates communication and collaboration among the three necessary components of agricultural development: research, education, and extension.
- Through this integration, research and education are grounded in real world problems identified through agricultural extension programs, and extension programs in turn benefit from the cutting-edge university research and teaching methods.

In the developing world, the three missions are generally housed in different ministries, greatly complicating collaboration internally and externally.

U.S. land-grant universities and colleges and their world class researchers, educators, and extension specialists are ideal mentors for developing country universities wishing to adopt this model. They can build human capacity (long-term degree training and faculty development) as they advise and helped integrate the agricultural research, education, and extension missions in developing country institutions based on the land-grant model.

The U.S. land-grant university model with long-term partnerships between U.S. land-grant universities and colleges and developing country "land-grant" type institutions are natural partners for solving the immediate as well as emerging problems in agriculture and natural resource management. Together they can leverage many more resources to support joint efforts and thereby magnifying the impacts of U.S. foreign assistance.

8. *Dramatically and sustainably increase agricultural development assistance:* The U.S. devotes too high a proportion of its foreign assistance budget to temporary emergency food aid. More resources should be devoted to developing country capacity building to enable them to solve their own problems.

Food aid is a double edged sword; it relieves immediate hunger, but it can create dependency and more threateningly, it can disrupt local food markets, lower local food prices, and make local food production unprofitable. Many developing country officials indicate that their people would be much better off if food aid were reduced and resources were shifted to agricultural development assistance so they could feed themselves. For example, Ethiopia, a chronically food insecure U.S. aid recipient, receives approximately $12 in food aid for each dollar of agricultural development assistance. Food aid and development assistance are related in their consequences but should be funded separately.

9. *Restore the agricultural development capacity of USAID by:*

- Recognizing that agricultural development is necessary as the first step in economic growth and a precursor to industrialization.
- Establishing agricultural production and food self-sufficiency as USAID's priority in developing countries that are food insecure.
- Double USAID and other U.S. foreign agricultural assistance support of rural infrastructure; water and irrigation services; developing country agricultural education, research, and extension services; and post-harvest management in countries that have supportive agriculture policies that favor economic growth.

- Improving the effectiveness of USAID agricultural assistance programs by fully staffing USAID and by hiring program managers with expertise in agriculture and natural resource management.

  As noted by Peter McPherson, former USAID Administrator, and Secretary of Defense Robert Gates, USAID human resources have declined dramatically. Since 1980, permanent American USAID employees have declined from 4,058 to 2,200 and permanent foreign officers from about 2,000 to 1,000. In terms of all permanent USAID employees, USAID staff has dropped from a high of 15,000 during Vietnam to about 3,000 in the 1990s. In addition, there has been a dramatic loss of technical expertise. For example, USAID now has only two engineers, 16 agriculture experts and 17 education experts. So the combination of reduced staff overall and the loss of technical expertise puts the agency in the difficult position of trying to manage projects and programs with technical expertise and numbers of staff that are substantially inadequate. We need to rebuild human capacity for our international work (Secretary of Defense Robert Gates).

- Doubling USAID central funding (USAID/EGAT/AG) for agricultural programs, and provide increased funding flexibility by reducing earmarks.

  USAID has much less flexibility today to respond to new problems and the needs of countries as the countries define them because of excessive congressional and executive earmarks and directives (sometimes exceeding 100% of appropriated funds). There is insufficient funding and budget flexibility to respond to opportunities or to leverage resources from others. Congress must provide direction to USAID for appropriated monies, but with greater flexibility within the context of the appropriation process and oversight (Peter McPherson).

- USAID agricultural development assistance should be a mix of short-term, intermediate, and long-term agricultural development programs overseen by USAID staff with appropriate disciplinary expertise.

  Because of staff cuts, USAID has moved from an implementation to a contracting agency, which farms out large portions of the foreign aid program. It is increasingly difficult for USAID to provide proper technical oversight to these contracts. I have been told that because of staff shortages, USAID program officers are currently managing on average four times more funding than USAID policies call for. This makes technical oversight difficult. As an example, I recently conducted a training program for USAID staff in Washington on payments for environmental services. At one point I apologized that my program speakers were all economists. One of the USAID participants quickly responded, "Don't worry about that; we are also almost all economists." USAID needs more staff and more appropriate disciplinary diversity.

10. Full implementation of Title XII, the Famine Prevention and Freedom from Hunger amendment to the Foreign Assistance Act, which identifies a leading role for U.S. universities to work with USAID to achieve the goals of "ensuring food security, human health, agricultural growth, trade expansion, and the wise and sustainable use of natural resources"—agriculture in all its dimensions—through research, education, extension/outreach, and policy formulation.

Over the years, the scope and level of activities carried out by USAID through U.S. universities that have been characterized as "Title XII activities" has declined dramatically. The early members of the Board for International Food and Agricultural Development (BIFAD) had a broad and bold vision of their role and were supported in that view by the USAID administration of the time. They envisioned a huge potential in the application of university-led cutting-edge research and technical assistance in solving food and nutrition problems around the world (Deborah Ruben, 2008 Title XII Activity Report).

Conclusions

In conclusion, I would like to thank the Committee for giving me the opportunity to testify. I hope that my testimony has been useful and will assist the Committee in playing a leadership role in the discussion and reform of U.S. international food aid and foreign agricultural assistance. There are no silver bullets or easy answers to the current food security crisis. Solutions will take time, but the time to act is now. Please make sure that U.S. food aid and foreign agricultural assistance investments benefit both the U.S. and our developing country partners by assuring that each investment:

- reduces developing country dependence on foreign food aid,
- builds developing country capacity to solve their own problems, and
- strengthens positive attitudes in developing countries regarding U.S. policies and actions.

The CHAIRMAN. Thank you. Thank you to all of our witnesses. Dr. Minot, you mention in your testimony the need for more institutionalized system for funding emergency assistance. As we have heard today and has been referred to, emergency assistance is designed by nature to be somewhat ad hoc because of the fact that it, indeed, is an emergency. What systems or procedures do you suggest should be institutionalized to make the assistance more available when it is needed in times of emergency?

Dr. MINOT. Well, I think—and first of all, I think it needs to be internationally coordinated because this is something that where the risks of shock occurring, there may be several famines or several emergencies in a given year. It is much more difficult for one country, even the United States, to respond to multiple crises at the same time, than it is—it would be easier for the industrialized countries, as a whole, to respond to this crisis. So, first of all, some sort of international cooperation would be required. Second, some sort of—it is basically an insurance scheme. You have a situation where countries are willing to contribute a certain amount per year, but they want to make available a larger sum on this occasional, sort of, crisis situation, particularly when there are multiple crises—multiple emergencies that occur in a year. Those are the two key elements that would be required for a more institutionalized approach to emergency assistance.

The CHAIRMAN. I know that we are moving close to votes and I want the many Members of the panel to have an opportunity to ask questions so that we will be able to complete this before the set of votes come on the House floor. So I now move to the Ranking Member for any questions she may have.

Mrs. MUSGRAVE. Several of you have cited the lack of current agricultural production and reminded of the gains that have been made through the green revolution. Zimbabwe is always on my mind and could you just address government policies and what effect they have had. You know, you think of Zimbabwe being the bread basket of Africa and the enormous ability there to grow food and now it is just—I mean, it is devastated in every way. Could one of you, or all of you, comment on that? Whichever or whomever would like. Yes, go ahead.

Mr. GUROFF. I mentioned in my statement about the World Food Summit and the fact that there are, by consensus, a variety of things that have to happen all at once if a country is going to become food secure. And one of those factors, and a big one in the Zimbabwe case, is clearly the enabling environment for success in that area. There is no amount of food aid, there is no amount of technology that can overcome bad government practices and the absence of an environment for private investment, which is also a critical factor. So the answer, unfortunately, is a broad political one, in that case, that as I said—no amount of aid is going to overcome.

Dr. MINOT. Let me just—I certainly agree with my colleague's comments. I spent 2 years in Zimbabwe in the early 1990s and am

very aware of, certainly, the potential of the country, both in terms of agricultural production and as a vibrant member of the international community. The case of Zimbabwe highlights the fact that technical assistance and technology and developmental assistance is not always sufficient. It also highlights the need for assistance in the area of democracy and governance. It may be that the situation in Zimbabwe could not have been prevented by assistance in this area, but it certainly highlights the importance of good governance and transparency. Thank you.

Mr. CALLAHAN. Representative Musgrave, I might just have one quick point on that, as well. Having been in Zimbabwe earlier this year, and then most recently in Sudan last month, that certainly civil society is a crucial area, in Zimbabwe they are now exporting some of their highest producing farmers to Zambia and other countries due to the insecurity in the area and the lack of continuity. It is difficult for people to plant crops if they don't know if they are going to be owning that land or be able to harvest them down the line. In addition to that, even food aid has become more and more difficult in the capturing of trucks and things that are going to certain areas to be used for political use, but I think we should use Zimbabwe as an example. Certainly in southern Sudan and other countries where there isn't stability, now is the time for us to address some of those concerns in civil societies so that we don't have a crisis down the line in other countries as we do in Zimbabwe.

Mrs. MUSGRAVE. Thank you very much, Mr. Chairman, and thank you, witnesses.

The CHAIRMAN. Thank you. Mr. Pomeroy

Mr. POMEROY. What a terrific hearing. Mr. Callahan, I want to commend your testimony. We can almost feel the emotional impact of the trip you had into the feeding stations through your testimony for us. It certainly has created, in my own mind, a notion that we better take a trip there. I think that if these Committee Members could, similarly, see what you have seen, we might have a different notion about all of this. I am absolutely convinced that there are strategies that can profoundly improve our international food aid, that don't. On the other hand, we are bound against the very interest we are elected to represent, the well being of our farmers and so to those of you that—and I have heard a couple of statements. I think biofuels or some of the other ways we have structured our food assistance, we just have to reverse course on these. In other words, seek to dramatically reduce commodity prices so that we can do more relative food aid. Well, that is a structure that we are not going to really embrace here in the Agriculture Committee. We are trying to improve the financial circumstance of those we represent, but we are completely convinced this does not mean we are trying to starve the world. And so, trying to work through how we build capacity, how we drive innovation, how we expand global ag extension, how we weave in food for school attendance. These are strategies that are win-win strategies and these, in my opinion, needs to be—if you are going to think about it practically and strategically and what is going to be politically, most likely, to prevail needs to be the key points of advocacy by the hunger community, and we are ready to partner with you on that. I am not going to partner with you on taking down com-

modity prices. The market is, ultimately, going to sort that out. As we look at so many issues, so little time to try and get our hands around, I am interested in what seems to be working. You know, what are best practices that we might identify, pull and export.

And Mr. Guroff, you allude to some of them in your testimony. What factors are common to the success stories you have seen that we might learn from and, maybe, do a better job of incorporating into our policies?

Mr. GUROFF. I appreciate the question. There was discussion during the first panel about sustainability and one of the core elements of what we do at ACDI/VOCA is work at the local level to build cooperatives, to build associations, to build linkages that will be there long after we have gone. And this is—if there is anything that runs through our development efforts consistently it is this sort of development of human infrastructure, if you will. I referred to the hundreds of thousands that are benefiting from that organizational linkage and putting those groups to: linking them up in various stages of the value chain like NASFAM in Malawi; like the organizations that we have nurtured in Uganda; making small grants in Rwanda or Cape Verde with the resources made available through Title II programs. Taking what I have always referred to as the alchemy process of taking North Dakota wheat and turning it into road building and community organization and agricultural development around the world is a magical thing to me in the 10, 12 years I have been in this business. And I see this, as I say, working, essentially, through local organization building.

Mr. POMEROY. Dr. Dillaha, as part of the land-grant university, you talked earlier about the potential of trying to expand. We don't have enough folks to help. We have had, basically, USAID shrink to, it is a contracting agency, and in order to deal with staffing up, we are going to have to leverage some resources that are otherwise available. You fall pretty quickly on the land-grants there. What do you think, from your position, is the capacity that could be marshaled in a useful way from land-grants?

Dr. DILLAHA. I think there is a huge potential, and once again somebody mentioned earlier that Peter McPherson, through his role is the chair of the NASULGC is working with Members of Congress and others on some long-term programs that would establish partnerships between major U.S. agricultural universities; and either universities in different developing countries, or maybe a regional university that would represent a group of developing countries that would build up their capacities to educate people, to conduct research to address their problems. But, probably, more importantly is adapting their extension services to actually get the knowledge that we transfer from here that is developed there collaboratively, to get it out. One of the biggest problems that we have in many of the developing countries is they have educational institutions, they have agricultural research institutions, and they have extension services and they are all separate and they do not communicate. They do not work like the model we have. So I as an educator or researcher, I benefit from working with extension workers because I learn what the real problems are out there and then we integrate that into our teaching and our research programs. Then it also gives the opportunity for the extension workers to

learn more about our research programs and the new knowledge that is generated so they can get that out there. That model just does not exist in innate places. There were attempts to establish this in the past and there wasn't long-term support to maintain these efforts.

Mr. POMEROY. Thank you, Mr. Chairman, for your indulgence.

The CHAIRMAN. Yes. Thank you very much. Thank you, Dr. Dillaha. Mr. Smith.

Mr. SMITH. Thank you, Mr. Chairman. I guess I apologize for arriving late, I am trying to get a grasp of what all has been said and try not to repeat things. I would offer some comments first and that is that it is a relatively short period of time that we have gone from a surplus of some grains to, many would say, a premium. How can we explain that other than—I can't help but think that there are causes greater than and certainly have a greater impact than simply biofuel production. I can offer those, but in the interest of time I would prefer to hear from you, but the fact is when we hear about our current situation not being sustainable I would say neither is $2 bushel corn sustainable. When you look at the bigger picture of production and the cost inputs and otherwise—I don't need to repeat prior information. I also think about GMOs and I think the important role that GMOs have played in, literally, feeding the world. Dr. Barnes, could you, perhaps, express your association's perspective on GMOs and perhaps how useful they are, or if you are not an advocate of GMOs, could you explain that.

Dr. BARNES. Thank you for the question. Speaking for myself, and my organization, I would say that I advocate GMOs. Getting the proper GMO to the situation, say in Africa or to Ethiopia where I worked, would take some work, but Ethiopia needs improved productivity. It needs new options. The farmers there need new options and as my colleague from Virginia Tech said, extension work needs to be done. Well we need to give the right tools to the people. Genetically modified corn or wheat would be very helpful in Ethiopia if it fit the agricultural and environmental situation, so I fully support the idea.

Mr. SMITH. Thank you. Dr. Dillaha, could you elaborate, perhaps, on the acceptance? I would say GMOs are, maybe, accepted a little more today than just a couple of years ago. Could you speak to the acceptance worldwide, or to the science and those who may still fight GMOs, are they coming around?

Dr. DILLAHA. I don't know that I would have any more knowledge than you would. I think that the thing that we need to remember when we think about biotechnology and GMOs is they are not a silver bullet. It is just like the green revolution. The green revolution only worked in some parts of the world where there was adequate management skill, adequate water, adequate access to fertilizer and things like that. If we just introduce better seed, we are not, necessarily, going to get any increases in production and things like that. We have to have all of these other enabling factors. We have to look at farming systems. We have to look at the markets that have been mentioned and things like that. Certainly there is opposition to GMOs and some types of biotechnology in different parts of the world, but it is certainly a valuable tool that we

have in our tool box to address the problems that we are talking about.

Mr. SMITH. Okay, thank you. And let me just say that last year when I traveled to Ethiopia, I must say that I was impressed and, actually, inspired by the interaction of USAID, Catholic Relief Services—by not only their interaction, but how they are bringing a better way of life to those folks that most Americans don't identify with. The increment of improved living is huge and I commend those agencies involved and certainly thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much. Mr. Callahan, you had mentioned the long term nature of the food crisis and how we are only at the beginning. Based on what you have seen, do you think the situation will be improved or worse a year from now?

Mr. CALLAHAN. From what we are doing, we need to make some significant efforts or the situation will be worse a year from now, so we are very concerned about it. I think the publicity that we are currently receiving; the fact that the Congress has acted and the U.S. Government has shown great leadership; the fact that the World Bank is getting involved; and the fact that a lot of other foundations such as Gates and others are participating, is very helpful to the cause. But I still see there are a lot of gaps, there are a lot of people in isolated areas that won't be reached by some of the quicker initiatives. As we have mentioned at this meeting—longer term agricultural production investments are going to be necessary or the situation will continue to be difficult and worse than it is today.

The CHAIRMAN. What is your answer to that, Mr. Guroff? Is it going to be worse or better a year from now?

Mr. GUROFF. I think, as I said in my testimony, it depends on political will at this point. I think the jury is out on the question. We have made some progress in the farm bill, in terms of protecting non-emergency programs, which down the road will help us to avoid similar emergencies. But it is just a step in the right direction. It needs to go further. There has been no answer in terms of the Emerson Trust and replenishment, and as so many have said investment in agricultural development—if we can't really ramp that up, we are not going to be doing our parts, and as I said, it is the international community as a whole. Certainly the U.S. can't do it all, but the U.S. can certainly point the way and show that there is political will. Otherwise, I think we will see a worse situation a year from now.

The CHAIRMAN. Okay. Dr. Barnes, your answer to that question? Is it going to be better or worse a year from now, and why?

Dr. BARNES. Well I think, as we have all said, this is a long-term problem and I believe, at best, we can hope things will have perhaps bottomed out in a year from now. I feel that the global economic situation that we are facing took a long time to develop. It just didn't happen overnight and it is going to take a while to correct itself. So for the poor in the world and the hungry in the world I think this is going to be lasting a few more years. I hope it bottoms out in the next year and we can begin to make progress, but on the whole, I feel this is here for the long run and in the next year things will be about the same.

The CHAIRMAN. All right, thank you, sir. We are getting ready to have votes at any moment now. Mrs. Musgrave had to leave a few moments early, but in our discussion, the question that I have just asked that three of you have answered, I would like you three to put your statement in writing and perhaps to expand upon it, if you like. I would also like Dr. Minot and Dr. Dillaha to answer the same questions and put that in writing. We would like, as you know, to be able to have any expanded comments and the answer to that question within 10 business days from today. Normally it is 10 calendar days, but I am giving you 10 business days since earlier in the panel we asked you to be able to give any extended remarks within 10 business days, so we will make that consistent. That would be 2 weeks from today, 2 calendar weeks from today. The record will remain open to allow any supplementary written responses, specifically to the last question I ask. I would like all five of you to answer. Mrs. Musgrave has an intense interest in your answer as well, and unfortunately, had to leave a few moments early.

Also, if there are any other questions that any Members have that they would like to submit to you, I encourage them to do so, immediately, within the next day or 2 so that you can also answer those questions within the 10 business days. Thank you all for your attendance. I thank the audience for their patience and thanks to the staff, Kim and Aleta, particularly, I want to say thank you and thanks to the minority staff, as well. This hearing of the Subcommittee on Specialty Crops, Rural Development and Foreign Agriculture is now adjourned. May God bless you.

[Whereupon, at 11:51 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT OF ROBERT PAARLBERG, PH.D., B.F. JOHNSON PROFESSOR OF POLITICAL SCIENCE, WELLESLEY COLLEGE

In the developing world, advocates for high-yield farming have recently been on the defensive. The current spike in world food prices has raised a possibility that modern farming in developed countries may be close to exhaustion due to environmental limits. A global project called the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), sponsored by the World Bank and the United Nations Food and Agriculture Organization, concluded earlier this spring that modern high-yield farming had led to land degradation, unsustainable water use, excessive fertilizer applications, inappropriate use of pesticides, and a loss of biodiversity. The implied conclusion was that poor countries in the developing world should stay away from modern high-yield farming and place much greater emphasis on agro-ecological approaches, organic farming, or "traditional knowledge."

This conclusion would take the developing world in exactly the wrong direction. The record shows that high-yield farming in rich countries today is actually friendlier to the rural environment (per bushel of production) and hence more sustainable than low-yield farming, and it is becoming more so every day as technology continues to evolve. The popular impression that modern farming will ruin the environment dates from Rachel Carson's 1962 book *Silent Spring,* a description of the health and environmental damages done by the use of DDT in farming. Yet this impression is now out of date. Thanks in part to Carson's book chemical use in American farming is now more tightly restricted (DDT has not been used for nearly 4 decades) and numerous other regulatory and technical advances (such as conservation tillage) have dramatically reduced environmental damage even as yields have continued to increase.

And, there is no end in sight to this important progress. The Organisation for Economic Co-operation and Development (OECD) has just published an important review[1] of the "environmental performance of agriculture" in the 30 most advanced industrial countries of the world, those with the highest yielding farming systems. The new data show that between 1990 and 2004 total food production increased in volume by another five percent, while adverse environmental impacts were diminishing in every area.

- The area of land taken up by agriculture declined four percent.
- Soil erosion from both wind and water was reduced.
- Water use on irrigated lands declined by nine percent.
- Energy use on the farm increased at only ⅙ the rate of energy use in the rest of the economy.
- Gross greenhouse gas emissions from farming fell by three percent.
- Herbicide and insecticide spraying declined by five percent.
- Excessive nitrogen fertilizer use declined by 17 percent.
- Biodiversity improved, as increased numbers of crop varieties and livestock breeds came in use.

The OECD countries registered this strong performance even while continuing to carry a disproportionate production burden. They are home to only 18 percent of the world's citizens (and a much smaller fraction of the world's farmers) yet they produce 36 percent of the world's annual cereal crops, 40 percent of the world's meat, and 47 percent of the world's milk.

What has made these reduced impacts on the environment possible is not a move away from high-yield farming, but instead a move toward "precision farming." Farmers are now conserving water with drip irrigation systems and laser-leveled fields. Farm tractors now have satellite-linked Global Positioning System (GPS) monitors and Geographical Information System (GIS) maps that can tell exactly where they are in a field (within 1 square meter) and precisely how much water or fertilizer that part of the field needs. In the United States, genetically engineered seeds have allowed farmers to control pests and weeds with fewer chemical sprays and less soil tillage, leading also to less burning of diesel fuel and more sequestered carbon.

It is low-yield farming, not high-yield farming, that does greatest harm to the environment. In America it was in the 1930s, when wheat yields were less than half the current level, that farmers plowed fragile dry lands on the southern plains, and

[1] OECD (2008). *Environmental Performance of Agriculture in OECD Countries Since 1990,* Paris, France, *www.oecd.org/tad/env/indicators.*

then watched the soil blow away creating an infamous "Dust Bowl." In the decades that followed, improved seeds and new fertilizers made good lands much more productive, so fragile lands no longer had to be plowed. As a consequence total U.S. farm output doubled after 1950, even as the land area being farmed declined by 25 percent.

When developing countries embrace modern farming they make comparable land conservation gains. In India in 1964, before the introduction of modern seeds and fertilizers, farmers produced 12 million tons of wheat on 14 million hectares of land. Following an uptake of new seeds and fertilizers, yields increased dramatically so by 1993 India was able to quadruple its wheat production while increasing its cropped wheat area by only 60 percent. M.S. Swaminathan, the Indian crop scientist who led this "green revolution" later commented: "Thanks to plant breeding, a tremendous onslaught on fragile lands and forest margins has been avoided."

The goal of environmentalists today should be to help farmers in Africa make a similar transition toward more productive cropping techniques. Roughly 60 percent of all citizens in sub-Saharan Africa are farmers, and most have no irrigation, no improved seed varieties, no nitrogen fertilizers, and no veterinary medicine for their animals. Their crop yields are only 1/10 as high as in Europe and only 1/3 as high as in the developing countries of Asia, and despite their best efforts production has fallen behind the rate of population growth. On a per capita basis, production in Africa today is actually 19 percent below where it was in 1970.

Some (including those who influenced the ISTAAD assessment) like to peddle a romantic notion that Africa should stay away from high-yield farming and embrace pre-modern "organic" production methods instead. Yet most of Africa's smallholder farmers today are *de facto* organic (since they use little or no nitrogen fertilizer) and the outcome is anything but romantic. A majority of smallholder farmers in Africa are women who earn only about $1 a day, and 1/3 of them are malnourished. Nor are they succeeding as stewards of the environment. The nutrients in their soils become exhausted from constant cropping without fertilizers, so they must move on to clear new lands. Land clearing for low-yield agriculture has become the cause of approximately 70 percent of all deforestation in Africa. High-yield farming based on modern agricultural science may not be romantic, but it remains the best option available for increasing both the production of food and the income of farmers, at least cost to the natural environment.

What is it that holds poor farmers in Africa back from moving toward higher crop yields and a better-protected rural environment? In my new book *Starved for Science: How Biotechnology is Being Kept Out of Africa* (Harvard University Press) I show that farmers in Africa suffer from low productivity because most are laboring without any of the essentials of modern farming. No fertilizers, no hybrid seeds, no irrigation, no electrical power, no veterinary medicine. Only four percent of farmland in Africa is irrigated. Farmers in Africa use only about 1/10 the amount of fertilizer per acre as farmers in the industrial world.

It would be easier for farmers in Africa to get access to these essential technical supports if governments in Africa invested more in agricultural development. In recent years governments in Africa have dedicated only about five percent of their public spending to any kind of agricultural development, far too little for a sector employing 2/3 of their citizens and in such great need. Because of inadequate rural infrastructure investments, most farmers in Africa are significantly isolated from the modern economy. Seventy percent of rural dwellers live more than 2 kilometers (a 30 minute walk) from the nearest all-weather road, so most household transport still takes place on foot. High transport costs drive up the price of fertilizer deliveries and drive down farm profits from commercial sales. Rural infrastructure and agricultural research need public sector leadership, but government spending on farm-to-market feeder roads has been marginal and agricultural research has been particularly neglected.

At an African Union (AU) meeting in 2003 in Maputo, governments in Africa pledged to increase their budgetary spending on agriculture to ten percent by 2009, in support of a new Comprehensive Africa Agriculture Development Programme (CAADP). Helping governments in Africa to reach this goal should be the first priority of U.S. development assistance in the region. Unfortunately, USAID support for agriculture in Africa has been shrinking rather than growing for the past 2 decades. As late as 1980 a full 25 percent of all U.S. official development assistance went to agriculture, but as of 2007 only one percent of USAID spending went for that purpose. When the aid-dependent countries of Africa see the donors pulling money away from agricultural modernization, they are inclined to do the same.

Weak donor support has been particularly damaging to agricultural research investments in Africa. We know that agricultural research has big payoffs in Africa. Colin Thirtle, Lin Lin, and Jenifer Piesse have calculated that the weighted average

rate of return to agricultural R&D spending in Africa's farm sector has been a respectable 22 percent. In its *2008 World Development Report* the World Bank has estimated, from a review of 188 different studies carried out in Africa (between 1953 and 1997) that the average rate of return on agricultural research investment in Africa is above 30 percent. Yet investments in agricultural research have been badly neglected. In one sampling of twenty-seven countries in sub-Saharan Africa in the 1990s, public spending on agricultural R&D had declined in half. Between 1981 and 2000, per capita spending on agricultural science in Africa overall actually declined by 27 percent.

This abandonment of agricultural research in Africa was caused, in significant measure, by a collapse in donor support. Between the mid-1980s and 2004, annual USAID funding for agricultural R&D in Africa dropped by nearly ¾, down to a negligible $15 million for the entire continent. African governments were unable to make up for this decline in external assistance so their own spending on agricultural research was cut back.

Why was external assistance to African farming cut back so sharply? One reason was an illusion, created by low international food prices in the 1980s and 1990s, that the world's food production problems had all been solved. In truth, food production problems in Africa were worsening in the 1980s and 1990s, and between 1991 and 2002 the number of undernourished people in the region increased from 169 million up to 206 million. Nearly ⅓ of all men, women, and children in sub-Saharan Africa became malnourished, even at a time when world food prices were low. Price levels in the international marketplace have always been a poor indicator of actual circumstances in the African countryside.

The current run-up in international crop prices has brought renewed attention to food and farming issues, but so far the response of the U.S. Government has been to stress short-term food aid needs over long-term investments in agricultural development. Roughly 85 percent of the new funding pledged by President Bush in response to the world food crisis this year has been for food aid. Financing food aid is important, but what poor farmers in Africa need for the longer run is higher farm productivity. This will require revived international support for adequate local public investments in things like rural roads, rural irrigation and power, rural schools, rural clinics, and most of all local agricultural research. The bulk of Africa's food crisis comes not from the high cost of imported food but instead from the low productivity of Africa's own smallholder farmers. The current interlude of high food prices has revived interest in international food and hunger issues, which is a good thing. If the current crisis can be leveraged to revive USAID's traditional mission in supporting farm productivity gains in poor countries, then something even better will have been achieved.

SUBMITTED STATEMENT OF DR. CARY FOWLER, EXECUTIVE DIRECTOR, GLOBAL CROP DIVERSITY TRUST

On behalf of the Global Crop Diversity Trust I would like to thank the Committee for the opportunity to submit this testimony, and in particular for the Committee's recognition of the importance of the Trust's work through the authorization in the farm bill of the appropriation of $60 million to fund the United States' contribution to the endowment of the Trust.

Background

The recent food price crisis has thrown into sharp focus many of the development challenges we face to ensure food security: population growth, little new land, water shortages, uncertain energy supplies, and climate change. These mean that soon our crops must produce more food, on the same amount of land, with less water, with more expensive and less secure supplies of energy and fertilizer, under climactic conditions which farming has never experienced.

There is no possible scenario in which we can continue to grow the food we require without crop diversity. But this diversity is at risk, dying even in the gene banks where it has been placed for safekeeping. Individual varieties, such as the 200,000 varieties of wheat, have different traits for drought or heat tolerance, nutritional quality, disease resistance and every other possible characteristic. Crop diversity is therefore the raw material for improving and adapting crops to meet all future challenges.

But securing crop diversity is a unique challenge because:

- There is complete agreement regarding its paramount importance—it is the biological foundation of all agriculture, everywhere.

- There is total global interdependence—no country in the world is self-sufficient in the genetic diversity of the crops which feed its people.
- The solution is available and simple—all the political agreements are in place, the science is understood, the institutions exist. Only the finance is missing.
- There is only one organisation working worldwide to solve this problem—the Global Crop Diversity Trust.

Therefore, full funding of the Global Crop Diversity Trust's endowment will guarantee that the genetic diversity of the world's main food crops will be secured, conserved and available—forever.

Global Crop Diversity Trust

The Trust is an independent international organization, established in 2004. Its founders were the international research centers of the Consultative Group on International Agricultural Research (CGIAR), and the Food and Agriculture Organisation of the United Nations, both of which recognized the urgent need for a dedicated organisation to undertake a task which was beyond the mandate of either organisation.

Since at least the 1980s, crop yield improvements have been the single greatest contributor to increased production. But the rate of increase has been dropping steadily. Not coincidentally, since 1980 the share of overseas development assistance for agriculture has plummeted from more than 16% to less than 4% of Official Development Assistance.

These cuts impact not only research, but the conservation of the raw material for much research—the collections held by gene banks. The crop research called for so frequently, in particular with regard to fostering a second green revolution in Africa or adapting agriculture to climate change, is based on the material found in gene banks, the most important of which internationally are held by research organizations. The lack of security of funding threatens these, with implications for agriculture everywhere. The Trust will, once fully endowed, fund the maintenance of the world's most important gene banks so that the fluctuations of individual research budgets have no impact on the crucial collections of crop diversity.

The Trust has already raised $143 million, from developed and developing country donors as varied as the United Kingdom, India, Australia and Ethiopia, as well as from philanthropic foundations and corporations. The U.S. was one of the first countries to announce support for the Trust, prior even to its formal establishment as an international organization. This early vote of confidence was vital to encouraging other donors, who have since come through very strongly. As other countries have stepped forward top fund the Trust, the U.S. is now one of the Trust's smallest donors. In a reversal of the earlier situation, now the lagging contribution by the U.S. has the potential to undermine confidence in the Trust, and consequently future fundraising.

> "To ensure that the most critical collections of rice, wheat, corn, potatoes and the other staple crops that feed the world continue to be protected, the Global Crop Diversity Trust deserves continued support.At a time when science is providing the keys to understanding how best to use the contents of these precious food crop gene banks in order to benefit humanity and the environment, the collections themselves are under threat. The Global Crop Diversity Trust will help protect these irreplaceable sources of global biodiversity, ensuring that their promise is fully realized."
>
> Dr. Norman E. Borlaug,
> Nobel Peace Prize Laureate, 2007 Recipient of Congressional Gold Medal.

The Work of the Trust

The Global Crop Diversity Trust is the sole worldwide response to the under-funding crisis facing gene banks, offering a clear and achievable solution. The Trust will ensure the conservation and availability of the vast genetic diversity of our food crops. Although less than 4 years old, the Trust has already raised $143 million, and has launched a comprehensive programme to:

- regenerate and safely duplicate threatened, and unique, collections (the Trust is already funding regeneration activities in 45 collections in 32 countries);
- upgrade key gene banks holding multiple globally important collections;

- safely duplicate collections at the Svalbard Global Seed Vault (the Trust has organised and funded the shipment of over 100 million seeds to this unique back-up facility in the Arctic);
- develop information systems for better management of, and dramatically improved access to, collections-specifically:
  - the Trust is funding the development of a version of USDA's gene bank management software which can be rolled out for free to developing countries; and
  - the Trust is also developing a system to enable plant breeders to search collections globally, by trait, over the Internet, which will massively expand the ability of scientists to research and access useful traits;
- screen collections for traits essential to meet climate change and other challenges, for example the Trust has just entered into partnerships with institutions in 15 countries to support screening of collections of banana and plantain, barley, chickpea, coconut, cowpea, grasspea, lentil, maize, millet, rice, sweet potato, taro, wheat, and yam; and
- develop improved conservation methods for difficult-to-conserve crops of particular importance to the poor in tropical countries, such as cassava, yam, and sweet potato.

This programme can be seen as preparing a 'global system' for the conservation and availability of crop diversity, whose permanent maintenance the Trust will fund through its endowment. The Trust has also already started funding vitally important collections from its endowment—effectively providing grants which will last in perpetuity and therefore removing all funding uncertainty from vital collections. In 2008, long-term grants drawn from the Trust's endowment will already total $1.95 million and will provide security to cassava, wheat, barley, faba bean, lentil, pearl millet, banana, bean, grass pea, sorghum, yam, forages, rice, and the management of the Svalbard Global Seed Vault.

Long-Term Funding for a Long-Term Task

The conservation of crop diversity is by its nature a very long-term task, requiring consistent and reliable funding. Uncertainties in funding for gene banks place collections at risk, and even short-term interruptions in funding can result in the loss of unique material. The current funding approaches—a reliance on annual funding from central treasuries and on traditional 3 to 5 year grants—are failing, despite the importance to development of a well-funded system of gene banks worldwide.

There is a focus from most donors on short-term impact, though shortfalls in gene bank funding can reduce options for agriculture forever. In the long-term nature of gene banks' work, a 3 to 5 year grant provides very little meaningful security. Only an endowment fund can provide the requisite guarantees of truly long-term funding, which will insulate the vital work of gene banks from budget cuts and changes in funding fashions, while still exposing them to the rigours of effective project management, external review and proper accountability.

The Congress endorsed the Trust's mission and the need to fund it through a permanent endowment when it enacted section 3202 of the 2008 Farm Bill. Section 3202 authorized the appropriation of $60 million over 5 years to fund the U.S. contribution to the Trust endowment.

The appropriation of funds for the Trust endowment is a concrete contribution to one of the most important issues facing agriculture—the conservation of its biological base. Globally, current arrangements for conserving crop diversity are failing to provide adequate security for this vital resource.

- The international community therefore funds the conservation of crop diversity in a patchwork of individual commitments and arrangements, yet does not have the reassurance that the job is being done.
- The Trust, as the sole dedicated worldwide funding organization for the conservation of crop diversity, is uniquely placed to allow donors to view this work globally, rather than through disparate institutions across the globe.
- The Trust allows donors to apply rigorous standards to donations whilst avoiding the competition and duplication inherent in current funding arrangements.
- The Trust allows donors to remove funding uncertainty from the conservation of crop diversity as a whole, while reinforcing the need for individual institutions to perform.
- The Trust will promote the effective, goal-oriented, economically efficient and sustainable global system which the conservation of crop diversity requires.

"Low agricultural productivity in sub-Saharan Africa is due, in part, to the limited use of agricultural inputs, such as fertilizer and improved seed varieties, and the lack of modern farming practices."

"The U.S. Agency for International Development (USAID) funding to address food insecurity in Africa has been primarily for emergency food aid, which has been crucial in helping to alleviate food crises but has not addressed the underlying factors that contributed to the recurrence and severity of these crises."

Government Accountability Office (May 2008).

What Sets the Trust Apart?

In a world where there are many important, and apparently overwhelming, issues demanding attention, it is important to note how the Trust differs from other organizations competing for donations.

- *Its mission is achievable.* It is rare that the world faces a major problem which has highly disturbing implications but an identifiable and achievable solution. This is precisely what the Trust offers; a costed, measurable plan, relying on existing institutions and simple proven technologies.
- *It is the only solution.* Crop diversity is disappearing, even in the gene banks built to protect it, and there is no organization apart from the Trust tackling this problem worldwide. The Trust offers a unique opportunity to put in place a rational and cost-effective system for the conservation of the resources which underpin all agriculture and the world's future food supplies.

U.S. Funding for the Trust

Sixty million dollars has been authorized for the Trust in the 2008 Farm Bill. The Trust hopes to make significant strides towards this target in the early period of the Bill, due to the twin imperatives of the urgency of delivering its mission, and the importance of establishing clear support from the U.S. in the eyes of other potential donors.

In this regard, we urge the Congress to ensure that the precious and irreplaceable resource of our crop diversity is preserved through the provision of funding for the Trust from funds provided in the FY 2008 supplemental appropriations provided for agricultural development. In addition, we urge that funding for the Trust endowment be provided within the FY 2009 Foreign Operations appropriations at a level which would ensure fulfillment of the $60 million Trust authorization within the 5 year timetable approved by this Committee and enacted by Congress.

"Since crop gene banks around the world are so critical for sustaining the U.S. food supply system and a major sector of the U.S. economy, full support for the Global Crop Diversity Trust and its conservation goals is essential."

Safeguarding the Future of U.S. Agriculture,

University of California, 2005.

The Global Crop Diversity Trust is extremely grateful to the Committee for the chance to present this testimony, as the Committee considers the complex issues surrounding agricultural development assistance and food aid. We will of course welcome the opportunity to respond to any questions that the Committee may have in this regard.

SUPPLEMENTAL MATERIAL SUBMITTED BY SEAN CALLAHAN, EXECUTIVE VICE PRESIDENT, OVERSEAS OPERATIONS, CATHOLIC RELIEF SERVICES

CRS Expectations About the Global Food Crisis Next Year

Summary: Encouraging signs indicate that the rapid, upward trend in food prices is abating. However, major multilateral organizations and think tanks point out that this is a long-term crisis.

- Vulnerable countries and volatile markets need to be monitored closely, and the U.S. response needs to be expanded geographically and even modified to better address the needs on the ground. The real danger in this situation is the prospect of high fuel and food prices putting extreme pressure on societies already vulnerable to political or environmental shocks.

- Countries hardest hit will be food and fuel importing nations with low per capita incomes. Slowing food price increases, or even a leveling off, will not be enough to overcome the extreme vulnerability throughout much of the developing world.
- Congress should continue leadership that it has shown in the Trade Title of the 2008 Farm Bill and the FY 2008–2009 Supplemental Appropriations bill.
- CRS has outlined *additional steps* in this prospective review for consideration by the House Agriculture Committee. In particular, CRS urges Congress to conduct both oversight hearings and overseas fact-finding trips.

Expected Short-term Trends: The current global food crisis stems from increased costs in the commodity, fuel, and credit markets. A critical factor in this ongoing crisis is the ability of countries to buffer the most negative economic effects as they arise. While OECD countries are tightening their belts, developing economies have less room for maneuver, and the most vulnerable countries have virtually no flexibility to handle severe economic stress and hunger.

The course of the global food crisis over the next 6–12 months will depend upon the political will of all nations to employ real remedies for the causes of food insecurity. Evidence of economic resilience in major economies, greater global political stability, downward pressure on oil prices, and resolution of international financial turbulence would all help maintain food price stability. Given this long list of contributing factors, food prices do appear to be stabilizing at significantly higher levels than in 2006. See charts below.

Although strong wheat production has led to falling prices, maize sells at double the previous levels and rice prices remain historically high. Poor harvests, climate change, low grain stocks, and increased demand for animal protein and biofuels all contribute to the continuation of high commodity prices. Record prices for energy and fertilizer, both key inputs to global agriculture prices also exacerbate the food price crisis. Current threats to oil production from hurricanes, insecurity in Nigeria, and uncertainty about Iranian policy hold prices at record levels.

Price Graphs for Key Food and Fuel Commodities 2007–2008

Scenario's over the next 6–12 months: In Africa, secondary shocks are developing in the Horn for Africa with poor harvests resulting from drought. Zimbabwe's ongoing political instability reinforces the food crisis. In the Caribbean, Haiti is undergoing a series of problems caused by both drought and political unrest. In South Asia, the success of Pakistan's political transition remains in doubt, causing particular uncertainty about food security in the most economically-vulnerable areas. In all of these cases, the double-jeopardy effects of high food and fuel costs, plus additional political shocks make poor populations extremely vulnerable.

The Multilateral Assistance Outlook: The World Bank has launched a special request for Ethiopia at $200 Million, but even if successful, this approach cannot be easily be replicated for all the other countries. In an alternative approach the World Bank is calling for a "Global vulnerability fund" to provide a new channel for investment in crisis areas, but there is little new money to fund this idea. Agencies such as World Food Programme are looking to the Middle East for new funds and the Saudi Government has given $500 million to date. Other UN Agencies are also undergoing planning efforts, but how these will be manifested and at what funding levels remain unclear. Unfortunately, many other donors are only seeking to reshuffle existing development aid rather than adding new resources to keep pace with rising food insecurity.

Recommendations: What we see in our field programs across the developing world is that the current food aid structure lacks certain provisions to maximize the already generous resources provided by the American people. The following list of

recommendations for the Subcommittee provides steps to address both short and long-term aspects of the crisis.

- *Feeding the poorest of the poor*—Establish a global social safety net program to be administered by FFP with approximately $50 million per year of Title II resources. The multi-year unconditional social safety net programs would target people most vulnerable to food insecurity. In addition to the current food aid programming objectives, these safety net resources would be used to preserve the human dignity of the most vulnerable and expand outreach to the most vulnerable, those who suffer from the most severe forms of chronic hunger. These same people are currently victims of geography, as they are outside of the Food for Peace's regular programs.
- *Providing PVOs more resources to complement Title II food aid*—Establish a cash pipeline for FFP (outside of P.L. 480, Section 202e) to use in both emergency and development programs (this would be either through funding authorized by the Foreign Affairs Committee, the Agriculture Committee or both). The funds would be made available from outside current P.L. 480 legislation but would be used by Food for Peace to supplement food aid resources. Such cash resources would tackle hunger more broadly than the current resources allow, by employing voucher programs and agriculture development activities, which require more appropriated funding than allowed under Title II.
- *The widespread suffering in the current crisis points to a complex of food security factors:*

  (1) availability of food (including food aid); and

  (2) access to and affordability for vulnerable populations (targeted food vouchers); as well as

  (3) boosting agricultural production (through input vouchers).

  Such effective interventions apply across the range of countries suffering from this crisis. Providing more commodity food aid is clearly not enough. Food for Peace needs to build a more flexible and comprehensive response to world hunger.
- *Creating a Mechanism for Government to Government Technical Assistance on Agricultural Policy*—Amend the farm bill to provide government to government technical assistance on agricultural policy by creating a mechanism for USDA representatives (and U.S. Land-Grant partners when appropriate) to provide short and long-term technical assistance to developing country governments suffering from the food crisis. Areas of assistance could include specific areas as follows:

  —Creating or strengthening government social safety net programs, using experts from U.S. Government WIC, food stamp and school feeding programs.

  —Land tenure structures to allow owners of farms large and small to enjoy free-title to their land and enter into the formal agricultural economy.

  —Strengthening farm credit systems through technical expertise from the U.S. Farm Credit Administration to establish or strengthen legal environments for agricultural credit as well as assistance to improve the ability of nations to carry out agricultural credit programs that reach farmers and agribusinesses of all income levels.

  —Research and extension technical assistance through the USDA Agricultural Research Service, the Cooperative State Research, Education, and Extension Service as well as U.S. Land-Grant partners to help countries build or strengthen national research and extension structures.
- *Monitoring Title II Safe box Programs*—Provide oversight to Food for Peace as it carries out expanded development food aid programs as a result of new provisions called for in the current farm bill. Currently, Food for Peace operates development food aid programs in about 18 countries, while the World Food Programme and the World Bank estimate that countries hit especially hard by this long-term price crisis number over 30. Both need to coordinate on how to achieve food aid effectiveness. The Agriculture Committee can provide crucial oversight to this process.
- *Supporting House efforts to increase investment in agricultural production, agro-enterprise, market infrastructure*—In addition to the suggestions for expanded authority and funding for Food for Peace, Members should support expanded appropriations for USAID/EGAT to increase funding for interventions that will

expand global food availability and decrease the vulnerability of the poorest producers and most vulnerable urban populations.

The matrix below offers a birds-eye view of possible trends and responses in the nest year,

Scenarios	Outcomes	Interventions
The current situation is one of high fuel and food prices, leading to increased vulnerability, especially in net importing countries with large low income populations.	• Declining urban poor purchasing power • Food reductions in rural areas • Reduced ability of governments to support vulnerable communities • Reduced demand for fuel and oil based products	• Food transfers to most vulnerable urban groups • Input support to farmers • Link production to markets • Use local procurement methods to meet urban and rural needs • Improve market information systems
Hopeful: In 6 months time lowering fuel prices and increasing global production will led to falling fuel and food prices.	• Stabilizing commodity prices • Fuel costs fall to below $100/barrel levels • Food prices begin to fall	• Food transfers to most vulnerable urban groups • Input support to farmers • Monitor markets
Less Hopeful: In 6 months time with continued high fuel and food prices, many governments will be unable to continue subsidies to fuel and food or support to vulnerable populations.	• Continued pressure on food prices, combined with hungry periods, requires increased levels of intervention in affected countries	• Food transfers via food vouchers for urban and rural poor to access food • Rural farmers to access inputs to boost production • Voucher based local procurement to buy initial increase in production to avoid production losses

CATHOLIC RELIEF SERVICES

FOOD CRISIS: *Assisting the Poor through* Voucher-Based Programming

World food prices have doubled in the last two years, leading to a major crisis affecting up to 100 million poor people throughout the world. The most damaging impact of rising food expenditures is on the poorest people in developing countries, who spend a far higher proportion of their income on food. Prior to the crisis, most poor consumers were already spending up to 40-50% of their incomes on food and the recent surge in prices, means this group is eating less, buying lower quality food and removing children from schools to make ends meet.

The urban poor will be the first and most severely affected by the food price crisis, as they cannot produce food to buffer the effects of rising prices. However, the rural poor will also be impacted, as most farmers are net food buyers. Whilst the initial price shock has caused problems in more than 50 countries, analysts suggest that high food and fuel prices are likely to continue for several years; and that when prices stabilize, they will do so at significantly higher levels than in 2005/6 when food prices were at an all time low. The challenge of this crisis places agencies like CRS under immense pressure in generating effective responses for communities in need. Delivering Food AID has never been so expensive, and the globalised scale of the food crisis is unprecedented. Relief and Development agencies are therefore seeking more efficient and flexible response methods.

Vouchers: A scalable, flexible, market-based response: In response to the food price crisis, CRS is focusing on our long standing experience with vouchers in both emergency and development programming. High prices have shocked people's livelihoods, but markets are functioning and food, seeds, fertilizer and essential household goods are available. CRS has been using vouchers to assist ***rural and urban*** communities, recover from acute and chronic shocks for more than 15 years, the system is robust, rapid, low cost and supports local market systems.

Seed Vouchers & Fairs, CRS started vouched based programming with the distribution of vouchers for the "purchase" of seeds to support disaster-affected rural communities. We have successfully used the SV&F method, to assist seed insecure communities after drought, flood and displacement. To support our work, CRS has developed a series of "Best Practices" for rapid seed assessments, client needs and delivery systems, that are critical to successful voucher programs. The voucher approach is well received by recipient communities as it gives them choices in the type of seed they receive. Many farmers opt for local varieties of traditional crops, rather than hybrid seed, as they want crops suited to their farming systems. The local sourcing of the seeds means crops are adapted to local growing conditions and meet local nutritional tastes.

CRS staff checks beneficiaries at seed fair. *D. Brick*

Food Vouchers: When this process was translated into food procurement as an alternative to trans-oceanic food Aid, these same advantages apply. Buyers have the flexibility to buy what they are used to eating and they have the choice to buy at the quantities and quality they desire. To support the process, local traders, are vetted prior to the food fair, for integrity and product quality, and they are given information on the location and expected demands of a target population. CRS then produce food based vouchers that are used in exchange for food from the traders. These vouchers are later redeemed through CRS offices. The procurement method is based on local marketing systems, and avoids the need to use export standards. Traders purchase goods relatively near to the distribution points, which significantly reduce transportation costs. Buyers procure food that meets their needs in terms of type, quality and quantity.

Bundled vouchers: Success in single asset transfers led to the development of multi-purpose vouchers which enable recipients to use their vouchers for a basket of items such as food blankets, kerosene, shelter materials, in addition to seeds, fertilizers, animals and tools.

Voucher targeting mechanisms: CRS uses two basic mechanisms for voucher based transfers (i) safety net and (ii) a work arrangement. **Safety net vouchers** are used in emergency situations and for highly vulnerable groups. **Vouchers for work** may be used in development phases to pay for community based works.

CRS Voucher Experiences: CRS has considerable experiences in voucher-based programs, the examples below provide insight into how we have used vouchers in our programming worldwide

Seed vouchers: *Burundi seed vouchers and fairs*: CRS has successfully used **seed voucher and fair** methodologies since 2002 in Burundi. The fairs supply seeds in the quantity and quality that farmers need by: a) organizing a fair on a market day at the right time in the agricultural season; b) providing farmers with vouchers to "buy" seed; c) inviting local small-scale input suppliers, commercial producers and research institutes to supply a range of seed types and qualities. The exchange process allows farmers to buy the seed that best suites their needs, and their "purchase". CRS then reimburses sellers in cash for vouchers which stimulates the local economy. This method has helped facilitate agricultural recovery, improve productivity and disseminated new, improved varieties into the farming system. CRS/Burundi reaches over 50,000 beneficiaries per year through seed vouchers.

Food vouchers: *Kenya Rapid Assistance Program (RAP):* In response to a severe drought in 2005 which left 3.5 million people reliant on FOOD AID, CRS tested vouchers in 4 drought affected with **food or non-food items,** which could be redeemed in local shops. The program targeted pregnant and lactating women and households with children under five. RAP aimed to meet immediate needs rather than wait for transoceanic Food aid. The women received a voucher worth $7.50, representing 50% of their monthly basic food needs, as defined by SPHERE standards. Health workers transmitted nutrition, hygiene and child immunization messages to the women collecting vouchers. Impact surveys found that 97% of voucher expenditures were made on food. Dietary diversity increased, as recipients had the freedom to choose their foods. Food supplies increased in the shops registered under RAP, showing that traders were responsive to demand.

Vouchers at-a-glance

Single asset transfer

- **Seed vouchers** (exchange for seeds from traders and farmers)
- **Food vouchers** (exchange for locally-procured food)
- **Fertilizer vouchers** (exchange for fertilizers from local vendors)
- **Livestock vouchers** (exchange for livestock from farmers or traders)
- **Shelter vouchers** (exchange for materials from local suppliers)

Bundled-asset transfer

- **Basic needs vouchers** (exchange for combination of food, household goods, shelter materials, education and basic health care goods)
- **Input support** (exchange for seeds, fertilizer, tools and livestock)

Shelter vouchers: *Burkina Faso Emergency Relief Package:* Following devastating floods in 2007, CRS/Burkina Faso conducted "livelihoods fairs" with vouchers that benefited 9,156 people and 208 vendors. The fairs allowed beneficiaries to obtain **construction materials** (cement, metal roofing, tar), grains (rice, corn), cooking utensils, clothing and other goods such as mosquito nets, blankets, and mats. The eight selected villages selected were recommended by the local administration, and up until this point had received very little aid from NGOs.

Advantages of Vouchers

- Vouchers give people choice in the products they select.
- Vouchers are a cheap means of transferring assets.
- Vouchers can be rapidly disbursed to registered communities.
- Vouchers are easy to track and show impact in target group.
- Vouchers are less open to abuse / loss than food distribution.
- Vouchers allows for tailored responses, based on assessments.
- Vouchers support local production and market systems.
- Vouchers can empower women, to make "purchase" decisions.

Livestock vouchers: *Pakistan Livelihood Vouchers:* In the wake of the 2005 earthquake in Pakistan, CRS used livelihoods fairs to help affected families in Kashmir to recover assets and rebuild their incomes. CRS/Pakistan gave 5,903 vouchers to 3,000 families expanding the items available at the fairs to include **livestock**, cement, water storage tanks, craftsmen's tools, sewing machines, etc. Follow-up training was provided to communities to help maximize the productive value of items purchased.

Vouchers for Work: *Kenya Drought Emergency Response* is an example of a work voucher program: CRS/Kenya conducted a Vouchers for Work program to build resilience to the effects of drought in Kitui and Makueni districts. Work focused on construction of soil and water conservation structures, rehabilitation of water pans and promotion of drought-tolerant crop varieties. The project provided resource transfers to 4,687 vulnerable households and revitalized 3,642 hectares of farmland. The project sourced supplies through locally-based outlets, spurring the local economy by injecting Ksh10 million directly into the rural markets.

Catholic Relief Services is utilizing its proven voucher approach in new ways to respond to the food crisis both in rural and urban settings.

CRS' comparative advantage: CRS is a leader in voucher-based programming. CRS has considerable experience with innovative programs that use vouchers for asset transfer and local food purchase. These methods are particularly appropriate responses to the food crisis, in countries where markets are functional but people lack the purchasing power to access needs. There are many options for CRS to use our voucher experience as this crisis unfolds. The agency is also well placed for rapid start of programs as we work in virtually all of the affected countries, where we have a broad range of local partners who can implement relief and development interventions in both rural and urban settings.

SUPPLEMENTAL MATERIAL SUBMITTED BY ANDREW BARNES, PH.D., DIRECTOR OF FOOD SECURITY, FOOD FOR THE HUNGRY

"Based on your experience, what do you think the food security situation will be a year from now, either globally or in areas with which you are especially familiar?"

The food security situation is areas of Africa that are generally food insecure will not be greatly improved in a year's time. In the best of times these food insecure countries struggle to meet their food needs. In Ethiopia food needs of the chronically food insecure are supported by hundreds of thousands of tons of imported foods annually. Much of this food is supplied by the United States through Title II. The cost of buying that food, transporting it to Ethiopia and trucking it to its final destination has approximately doubled in the past year; making food aid a very costly intervention.

The factors contributing to the rapidly rising food prices are well know and included:

- Supply and demand for food. The population of the world is increasing at faster rate then global food production. Also the middle class is expanding in developing countries such as China and India and these upwardly mobile people are eating more per capita and are enjoying different foods, both of which are contributing to greater demand for food. This increase in demand seems to be permanent.
- Rising fuel costs. The rapidly growing middle class in China and India are purchasing more automobiles driving up the demand for fuel and therefore the price of fuel. This trend is not likely to change and therefore, it appears that the high cost of fuel is here to stay.
- Loss of crop land. The planting of land with non-edible biofuel production has reduced food production in some countries. The increased interest in the planting of biofuels is based largely on government policies which are not likely to change rapidly.

All these factors contribute to the very high price of Title II food. The American taxpayer can only bear so much. Title II programs are being closed in a number of countries due to the raising costs of the program. Hard choices must be and have been made. Should the U.S. Government fund Title II programs in Kenya or Ethiopia? Someone will lose out, and countries such as Kenya will not be receiving Title II food aid in the future.

The poor in Kenya will not see a great improvement in their food security situation in the next year or so. On the contrary they may be in worse condition than they currently are. It takes a couple of years to recover from a bad drought and the associated loss of productivity. In the past when food aid was less expensive it was more plentiful and could reach more people. The dwindling availability of food aid will make the effects of current drought even more difficult to recover from.

The above mentioned factors that contribute to the current global crisis did not suddenly develop because a rapid change in the global economy or a sudden change in global food policy. The current global food supply and demand "equation" did not spring up over night. Long term population trends and a long term "disinterest" in improving agricultural productivity have contributed to the problem. These trends will not change over night. Even if the governments of the world decided to immediately double funding for research to increase agricultural productivity it would still take a number of year to see the results. The fuel shortage and the associated high cost of fuel are the consequences of long term population growth, a greater demand for fuel and stagnant oil production. The growing middle class of the developing world will continue to want vehicles and the change to more fuel efficient vehicles will take time. High fuel prices may be here to stay. The large increase in the use of farmland to produce biofuels is affecting the availability of food. Government policies promoting biofuels will be hard to overturn in spite of the global need for food.

All these issues will make the "food crisis" long term in many countries which are chronically food insecure. This is especially true for the urban poor. Before the "global food crisis" large portions of their incomes were devoted to purchasing food and these people "lived on the edge". With today's prices many of them are falling off the edge. Even if food prices over the next year or so decline somewhat from their current highs these urban poor will still be desperate and be among the world's chronically food insecure.

Unfortunately, the current situation appears to be long term and will increase the length of the list of those who cannot feed themselves adequately. The consequences

of this situation may include forcing a young girl into prostitution to support her family on the personal level or anarchy on the national level. This is a rather gloomy perspective but one that *does occur* daily in the first case and may occur in the second case if global food prices do not come down.

ANDREW BARNES, PH.D.,
Director of Food Security,
Food for the Hungry.

SUPPLEMENTAL MATERIAL SUBMITTED BY NICHOLAS W. MINOT, PH.D., SENIOR RESEARCH FELLOW, MARKETS, TRADE, AND INSTITUTIONS DIVISION, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

July 29, 2008

At the July 16 hearings of the Subcommittee on Specialty Crops, Rural Development and Foreign Agriculture, Representative Mike McIntyre asked the witnesses to respond to a follow-up question: "Based on your experience, what do you think the food security situation will be a year from now, either globally or in areas with which you are especially familiar?" This note is a response to his question, with emphasis on the impact in low-income countries.

The food security situation in July 2009 will depend on a number of factors including the trend in commodity prices over the next 12 months, the response of governments and international organizations, and the response of individual farmers and consumers in developing countries.

Commodity Prices

It is very difficult to predict commodity prices, but we can draw some clues from the expected duration of the factors that have pushed these prices up. Wheat prices have been driven up by depreciation of the dollar and modest supply shocks, but a major factor has been restrictions on exports by Russia, Argentina, and other countries. It is likely that production will increase this year and next in response to higher prices. The USDA is predicting a record wheat crop for 2008–2009, based on a strong U.S. harvest and a possible end to the drought in Australia. It is quite possible that some of the major exporters will relax their restrictions on exports. Earlier this month, the Senate in Argentina rejected the President's plan to continue taxing agricultural exports, which will probably mean increased supplies of wheat and soybeans on the world market. Indeed, world wheat prices have declined about 25% from their peak in March, though they are still far above the 2007 average.

Rice prices have been increased by depreciation of the dollar, strong demand, and export restrictions by India, Vietnam, Egypt, and other countries. However, talk of creating a rice exporters cartel has been dropped, and the 2008 harvest is forecast to be 2.3% higher than last year, though much of it will not hit the market until the second half of the year. In response to these factors, the price of Thai Super A1 broken rice has also declined 28% from its peak in May, though still much higher than in January of this year.

The price of corn, on the other hand, is supported by the strong demand for animal products and for ethanol, the latter linked to the high price of oil. Although the European Union is scaling back its biodiesel subsidies because of its effect on oilseed prices, political support for ethanol subsidies in the United States remains strong, so it is less likely that corn prices will fall over the next 12 months unless oil prices do.

In summary, the prices of wheat and rice have already fallen from their peaks earlier this year, but are expected to remain significantly above the 2007 levels over the next 12 months. The price of corn will depend on the price of oil and U.S. ethanol policy, but is less likely to fall over the next 12 months. A global recession would reduce commodity prices quickly, but in this case the cure may be worse than the disease.

Food Security

Farmers that are able to produce marketable surpluses of the wheat, rice, and corn will benefit from the high prices, though the gains will be partially offset by higher fuel and fertilizer prices. These farmers represent 20–40% of the rural households in most low-income countries in sub-Saharan Africa and Asia. The urban poor and rural agricultural laborers spend a large share of their income on staple foods and depend entirely on the market for their food supplies, so their losses, as a percentage of income, are the greatest. Small-scale farmers that are net buyers also lose, though the loss is partially offset by the fact that they meet some of their food

requirements from their own production. Other urban households also lose, though their higher income protects them to some degree.

Assuming that commodity prices remain high by historical standards (even if they decline somewhat from the current levels), the effect on food security 1 year from now will be mixed. On the one hand, households will respond to the higher prices. Consumers will shift to staple crops that are not internationally traded (such as cassava, sweet potatoes, yams, sorghum, and millet) because their prices have not increased as much. Farmers will shift to producing these basic grains in response to the higher prices. For example, the FAO expects rice production to grow 3.6% in sub-Saharan Africa and 7.4% in Latin America and the Caribbean. It is also possible that the high food prices will slow or even reverse urban migration in some countries, as household respond to the high prices by returning to agricultural production. These responses by consumers and producers will reduce the negative impact of the high prices on food security.

On the other hand, many poor households will be forced to pay for food by pulling their children out of school, postponing health care, and reducing other non-food spending. If this is not enough, they may be forced to sell off assets, such as animals, consumer goods, or even land, to cover the cost of food purchases. If this is not enough, they may be forced to eat less, with dire consequences for nutrition and productivity. Obviously, the latter two responses cannot be sustained over time. Households that sell their assets this year to purchase food may have nothing left to sell next year. Furthermore, if they sell productive assets such as oxen this year, it will reduce their income next year. Likewise, the condition of people that start to eat less this year will worsen over time. Because of these cumulative factors, it is quite possible that the food security situation in 2009 may be worse than this year, even if food prices remain at current levels.

The response of the international community may represent the "tie breaker" between these two opposing factors. If food aid deliveries can be maintained or increased in volume terms and if social protection programs (like conditional cash transfer programs) can be expanded, it will help households avoid liquidation of their assets and malnutrition, reduction in school enrollment, and malnutrition. This will provide time and energy needed to adapt to the higher food prices. Support for agricultural development, particularly agronomic research on staple grains, will not improve food security by 2009, but it is an indispensable part of the long-term recovery of the balance between food supply and demand.

The biggest danger, in my view, is that the political will in both rich and poor countries to expand support for food and agriculture will dwindle when grain prices are no longer rising, even if they remain two- to three-times higher than in 2006.

RESPONSE TO QUESTION SUBMITTED TO THEO A. DILLAHA III, PH.D., P.E., PROFESSOR OF BIOLOGICAL SYSTEMS ENGINEERING AND PROGRAM DIRECTOR, SUSTAINABLE AGRICULTURE AND NATURAL RESOURCE MANAGEMENT (SANREM) COLLABORATIVE RESEARCH SUPPORT PROGRAM (CRSP), OFFICE OF INTERNATIONAL RESEARCH, EDUCATION, AND DEVELOPMENT, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, BLACKSBURG, VA

Question. "Based on your experience, what do you think the food security situation will be a year from now, either globally or in areas with which you are especially familiar?"

Answer. **My best professional judgment is that is that there is a significant risk that the food security situation will be more serious next year.** My judgment is based on the following factors:

Factors that will potentially worsen the food security situation (in no particular order):

- *U.S. and European biofuel programs* will require for grain to supply increasing biofuel factories. For example, current U.S. ethanol capacity as of July 24, 2008 is 9,407.4 million gallons per year and an additional capacity of 4,208 million gallons per year is under construction, a 45% increase in production. The vast majority is reliant on corn as a feedstock. According to the USDA, U.S. corn ethanol production currently uses 30% of the global change in total wheat and coarse grains production from 2002/03 to 2007/08. This has decreased wheat and coarse grains supplies and increased prices by varying estimates, but the estimates are generally in excess of 25%. EU diesel programs have a similar effect.
- *Increasing meat consumption:* Globally, meat consumption is increasing at a rate of 2.1% per year while global grain production is only increasing by 1.2%.

Meat requires 2.6 lbs grain/lb meat (chicken) to 7.0 lbs grain/lb meat. Consequently, unless growth in meat consumption decreases, there will be less grain for other uses, which will make grain scarcer and more costly.

- *High energy prices:* Increases costs of production by increasing fertilizer, production, and transport costs. I have no idea where energy costs are going.
- *Grain reserves:* Many countries maintain grain reserves for food security reasons. Theses have been depleted this year and countries will be trying to rebuild reserves, which will tend to increase prices.
- *Weather:* Agricultural droughts are expected to continue in many parts of the world.
- *Speculation:* I don't know.

Factors that will potentially improve the food security situation (in no particular order):

- High commodity prices should increase production.

THEO A. DILLAHA, PH.D., P.E.,
Program Director SANREM CRSP,
Office of Int. Res., Edu., and Development,
Virginia Tech.

RESPONSE TO QUESTION SUBMITTED TO AVRAM "BUZZ" GUROFF, SENIOR VICE PRESIDENT, FOOD SECURITY AND SPECIALTY CROPS PORTFOLIO, ACDI/VOCA (AGRICULTURAL COOPERATIVE DEVELOPMENT INTERNATIONAL/VOLUNTEERS IN OVERSEAS COOPERATIVE ASSISTANCE)

Question. Based on your experience, what do you think the food security situation will be a year from now, either globally or in areas with which you are especially familiar?

Answer. That will largely depend on the political will of the international community. High food and energy prices will be with us for some time to come. Some of the adverse effects of this are yet to be felt—not just hunger, but malnutrition and morbidity rates will continue to rise. Productive assets will in some cases be sold off *in lieu of* farming income. Also, continued societal unrest could exacerbate the crisis.

At the same time, rising food prices present an unprecedented opportunity if farmers in the developing world are able to develop their capacity and capture markets. Some of the greatest productivity gains could come in regions that are now the least advanced. However, 1 year is a short timeframe for building the capacity of people to produce their own food, which is the most sustainable and cheapest method of addressing world hunger and poverty.

Still, the market will respond over time and food shortages will abate. The extent to which the U.S. and other donors provide increased emergency and agricultural development assistance, as well as adjust trade and price control policies, to help avert future crises will be critical to how much better or worse things will get over the next few years.

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